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Postprint

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Citation for the original published paper (version of record):

Wilińska, M., Grzenda, W., Perek-Białas, J. (2019)

Grandmothers and non-grandmothers in the Polish labor market: The role of family issues

Journal of Family Issues, 40(12): 1677-1704

<https://doi.org/10.1177/0192513X19842243>

Access to the published version may require subscription.

N.B. When citing this work, cite the original published paper.

Permanent link to this version:

<http://urn.kb.se/resolve?urn=urn:nbn:se:hj:diva-43496>

Introduction

In this study, we explore the employment status of women aged 45+ with grandchildren and without grandchildren in relation to their family situations in Poland. Grandparenthood is an important life-course transition that brings about changes in intergenerational relations, values and identities which consequently may affect labour market positions, decisions and preferences regarding employment (Hochman & Lewin-Epstein, 2013). In the European context, the average age of becoming a first-time grandparent stretches from the age of 46 (women in Ukraine) to 60 (men in Spain), and, on average, the period of grandparenting lasts from 21 to 35 years (Leopold & Skopek, 2015). Thus, the current demographic outlook of grandparents suggests that contemporary grandparenthood overlaps with other family, but, importantly, also working life roles since, typically, grandparenthood precedes retirement (Leopol & Skopek, 2015). What this overlap implies remains a fairly unexplored issue. Thus, in this article, we examine the ways in which grandparenthood overlaps with other family roles and the consequences it has for the labour market participation of grandmothers.

This article joins the work of researchers who have emphasised the need to explore work-family life balance, not only in the prime age but also in middle-age and later life, to create a better understanding and foundation for building inclusive societies and reconciliation policies for all ages (Hochman & Lewin-Epstein, 2013; Kröger & Yeandle, 2013; Leopold & Skopek, 2014; Szinovacz et al, 2001). In extending the existing literature, this article examines separately work-family life balance among grandmothers and non-grandmothers. More precisely, it examines the varied employment statuses of women aged 45+ with and without grandchildren, and their withdrawal from the labour market to unemployment/ dealing with home and family, disability and sick leave, and retirement. Following Chou's et al. (2017) exploration of the impact of care responsibilities on women's employment, we include a range of family situations implying various care duties (adding also those related to caring for disabled family members)

to observe their effect on grandmothers' and non-grandmothers' employment. In this, we apply a multi-generational approach to our study, which as Železná (2018) evidences is the most appropriate for investigating the family/care context for middle-aged and older women.

Women's gendered life course in Poland

Becoming a grandmother is not only a matter of an individual and family change, but it is also written into a wider societal context that frames the ways of thinking and acting upon grandmotherhood. With the concept of linked lives, Elder (1994) stressed that human life course is characterised by the interdependence between the individual and the social world. Noteworthy, life course is here understood as a multifaceted and dynamic process. Individuals and their social worlds interact to create and recreate unique life course trajectories.

Further, the principle of interdependence explicates the fact that a change/transition experienced in one sphere of life affects other spheres as well. Thus, for example, becoming a grandmother at the age of 47 (average age of becoming a grandmother in Poland, Leopold & Skoped, 2015), typically considered as a working age, may bring about alterations in the working life roles. Those alterations are also gendered. Moen (2001; 2011) introduces here the concept of gendered life course. From the early ages, lives of women and men are shaped and structured differently. There are not only social and cultural norms, but also structural and institutional factors that magnify those differences. The domains of family and working life, as Moen (2011) argues, serve as particular examples of how women and men lives are built upon different expectations and are structured differently. Gender inequalities tend to increase rather than reducing with age. This, for example, explains why gender pension gap is few times higher than gender pay gap¹. Also, while both grandmothers and grandparents are involved with their grandchildren, the levels of grandparental care are much higher among grandmothers (Hank and Buber, 2009;

¹ In 2012, the gender pension gap in Europe was 38%. In 2016, the average gender pay gap in Europe was 16.2%; Gender Pay Gap Statistics, 2016)

Lakomý & Kreidl; 2015). This gender gap in grandparenting exist even if both grandparents are in full-time employment (Leopold & Skopek, 2014).

Poland is known to be a familialistic country in which family plays a vital role in providing care for children, people with disabilities and older people (Slany, 2013). The family policies in Poland are characterised by the scarcity of child care and the conservative image of the family, which has consequences for the possibilities of combining family and work lives (Glass & Fodor, 2007; Lange & Frątczak, 2010; Szkira, 2010). For example, in 2010, less than 5% of children aged 0-3 and approx. 40% children aged 3-6 were in formal childcare (Europa.eu). Such institutional constraints impinging on the possibilities of combining work and family life are also found to contribute to the changing family structure in Poland. Since the beginning of 1990s, the nuclear family model has been changing from a two-children model to a one-child model, and the overall percentage of childless families has been increasing (Author, 2018).

Working life for women in Poland is much shorter than for men. For a long time, women in Poland were able to take early retirement and the eligible retirement age for women is still 60 as compared to 65 for men. The employment rate for women reaches its peak at the ages of 40-44, and from the age of 45, it begins to decrease. In 2015, the employment rate for women in Poland fell from 76.6% at the age 45-49 to 52.4% at the age 55-59, and 18.0% at the age 60-64. The employment rate for women aged 65+ was 2.7% in 2015 (CSO, 2016).

Women in Poland are consistently defined by their family roles, and the social system offers little if any support for combining work and family duties (Glass & Fodor, 2007; Gerber, 2010; Plomien, 2009). These cultural and policy images have also material consequences. In comparison to working women without children, working women between the ages of 18 and 40 who have children are found to pay a motherhood penalty in the form of lower wages (Cukrowska-Torzewska, 2016). As women in Poland age, public discourses envision one role for them: a grandmother. Becoming a grandmother is perceived as a natural extension of

womanly duties that are carried into old age (Author, 2010). More than that, due to insufficient creches and kindergarten infrastructure, the role of grandmothers and their support in childcare become taken for granted in Poland (Martinez-Fernandez et al, 2013).

Work and family life in middle-age and later life: the role of grandparenthood

Middle-aged and older women are found to be substantially involved in unpaid care work, caring for either their old parents or their children. This situation, referred to as a sandwich generation, originally explicated the experiences of women (usually aged 40-59) whose caring duties squeezed them between two different generations: their parents and their children, and led to the experience of conflicting duties relating to intergenerational care of younger and older family members and paid work (Künemund, 2006). However, as Künemund (2006) contends, having children and older parents does not necessarily lead to the doubling of care duties; in fact, such a situation may apply only to a minority of the population. For example, a study from Italy confirms that older parents can also become important help providers to female sandwiched generation, which can positively contribute to women's labour market participation (Pagani & Marenzi, 2008).

Recent research evidence demonstrates that it is the generation of grandparents rather than parents who, to a greater extent, belongs to the sandwiched generation involved in various multigenerational care duties (Grundy & Henretta, 2006; Zhang et al., 2018; Železná, 2018). The situation where care duties accumulate rather than competing may indicate a strong sense of family solidarity and an overall tendency to care (Železná, 2018). This however does not need to reduce the potential risks of overburden among those who engage in such activities (ibid.). A weakened position in the labour market is an example of a risk associated with intergenerational caring duties. Moreover, this effect can be strengthened by the care coverage, social norms and welfare traditions ingrained in intergenerational care gender inequality.

Labour market activity and informal care duties

Care of older parents remains one of the key areas in which clear gender differences are visible. A recent study comparing intergenerational care in Europe found that regardless of the welfare regime and availability of care institutions, there was a substantial gender gap in care provided to older parents by their daughters and sons, with the former engaging in care more often (Haberkern et al., 2015). Similarly, a gender gap is found in spousal care of ill or disabled partners in later life. In U.S., Glauber (2017) demonstrates that the gender gap in spousal caring in later life is proportionate to the employment gap and is highest among those aged 50-65.

In general, informal care is found to have negative effects on the employment situation. In a study of Europeans aged 50+, Bolin et al. (2008) identified the negative impact of informal care on employment probability and hours worked, with small and non-significant consequences for hourly wages. It was evident that the effect for women was stronger than for men. Crespo and Mira (2014), looking specifically at the situation of women who care for their older parents, found that in general, those who provide care are employed less often than those who do not, and that the loss of employment due to care is mitigated by welfare and cultural factors. Women in the Southern Europe are at the highest risk of experiencing the negative impact of informal care on their employment situation; this risk is related to strong family obligations combined with traditional gender roles and the minimal involvement of the state in care provision. Nevertheless, studies in Norway demonstrate that even in a socio-democratic welfare state, informal care for older parents may have negative consequences on the employment situation of people aged 45-65, particularly women (Gautun & Bratt, 2016; Gautun & Hagen, 2010). The negative effect of care duties can be reflected not only in more frequent work absences (Gautun & Bratt, 2016) but also in limited support received from employers due to the underappreciated and underestimated costs of parental care as compared, for instance, to child care (Gautun & Hagen, 2010). Szinovacz et al. (2001) recognised the importance of informal care, including

spousal care, for decisions regarding retirement. Again, this effect correlates with other social inequalities organised along the lines of gender division (ibid.). Generally, similar care situations that potentially threaten the work-family balance appear to have longer and more complicated consequences for women than to men (Emslie & Hunt, 2009).

Grandparents and the labour market participation

While grandparental caregiving and the consequences of providing intensive care to grandchildren have been studied extensively (e.g. Hank and Buber, 2009; Lakomý & Kreidl, 2015; Leopold & Skopek, 2014), relatively less attention has been paid to the ways in which grandparenthood itself may affect the labour market participation. The differential effects of grandparenthood on labour market activities in later life have raised interest among researchers only recently, and the research has mainly focused on exploring the linkages between grandparenting and retirement. In one of the first studies in Europe, which investigated that relationship, Hochman and Lewin-Epstein (2013) found that grandparents had stronger preferences for early retirement compared to those who were not grandparents. Further, that finding was independent of actual grandparental care. Working from the theoretical perspective of linked lives, authors concluded that the specific status of being a grandparent triggered different ways of thinking about life, especially family and work life (ibid.). No substantial differences existing among grandparents representing different countries and family policy regimes were found. Wiese and Jaeckel's (2016) concur with those results by demonstrating a motivational shift regarding work and family among grandparents. Compared to non-grandparents, grandparents are found to be less emotionally attached to work and they are more at peace with their future retirement (Wiese & Jaeckel, 2016).

Studies observing actual retirement transition identify a much stronger effects of grandparenthood on labour market participation for women rather than men. For example, Van Bavel and De Winter's (2013) found that grandparenthood tended to lead to earlier retirement,

among people aged 55-60 in particular, and that the effect was stronger for women. Again, the effect of grandparenthood was assessed by examining the status of being a grandparent, not grandparental care involvement. Similarly, retirement risk was found higher for grandparents as compared to non-grandparents in Sweden (Kridahl, 2017). In contrast to Van Bavel and De Winter's (2013), the Swedish register population-based study did not find significant gender differences, which authors explained in relation to more equal gender family relations than in other countries (Kridhal, 2017).

The most recent studies examining the effect of grandparenthood on the labour market participation extend the focus from retirement to an overall question of labour market supply. For example, in their USA-based study, Rupert and Zanella (2018) observe a 30% reduction of working hours among grandmothers. Interestingly, that effect is irrespective of number of grandchildren, but can be reduced with the progressing grandchildren's age (ibid.). No similar relationship was found for grandfathers. Focusing specifically on grandmothers, Frimmel et al (2017) demonstrate that the likelihood of withdrawing from the labour market increases by 8% for first-time grandmothers as compared to non-grandmothers in Austria. Although the effect of becoming a grandmother on the labour market participation reduces with the grandchild's age, it remains significant even during school years (ibid.).

Our study

Consistent with the gendered life course perspective (Moen, 2011) and the research evidence presented above, we hypothesize that in our study investigating labour market withdrawal among grandmothers and non-grandmothers, we will find the following:

- 1) Grandmothers are in a higher risk of withdrawing from labour market than non-grandmothers.

- 2) The context of different family situations has more impact on the labour market position in the group of grandmothers than in the group of non-grandmothers.
- 3) The examined socio-economic characteristics have less impact on the labour market position in the group of grandmothers than in the groups of non-grandmothers.

Research Design

Data

The data used in this study comes from the first wave of Generations and Gender Survey (GGS) for Poland. The survey was conducted using a representative method, and individual personal data were obtained through household survey conducted face-to-face by interviewers. The main objective of this international research programme is to obtain information on demographic processes examined in the economic, social and cultural contexts (Kotowska & Jóźwiak, 2011). GGC is informed by the need to improve our understanding of various factors, including public policy and programme interventions, which affect the relationships between parents and children (generations) and between partners (gender).

The 2010-2011 GGS in Poland included 19,987 respondents aged 18-79, and covered a broad array of topics, including fertility, partnership, transition to adulthood, economic activity, care duties and attitudes. For the purpose of our analysis, we used data on women aged 45+, which gave a final sample of 5,999 individuals.

Measures

The key concern of this paper is the effect of different living situations related to family care duties on the labour market activity of grandmothers and non-grandmothers aged 45+ in Poland. Since the survey used did not include direct questions regarding different types of care, we used the following 4 situations as proxies for care work performed in and outside the household: 1)

living with birth parents, 2) living with a child, 3) having a grandchild and 4) living with a disabled person. In the case of living with birth parents, we also included the following variables: 1) parents aged 75+, and 2) parents' limited ability. We also included one direct question asking about assistance with child care in the previous 12 months. Number of children and grandchildren as well as the age of grandchildren were also included. To acknowledge the cultural and welfare context of this study regarding work-family interactions, we also included three questions revealing attitudes towards childcare, eldercare and grandchildren care. The questions explored specifically the attitudes towards informal (family) versus formal care arrangements in relation to those three areas of care.

Our dependent variables included four distinct positions in the labour market: 1) being employed, 2) being unemployed/ dealing with home or family, 3) being on disability or sick/other economic inactivity, and 4) being retired. The categories unemployed and dealing with home or family were integrated into one category in the analysis due to a very small number of women in those two different categories.

Additionally, the following socio-demographic variables were used as covariates: age, education, marital status, place of residence, self-reported health and monthly household income per person. The respondent's age, her age at first child, and the age at becoming grandmother for the first-time were used as continuous variables. The level of education was coded in four categories: primary, vocational, secondary and tertiary. We also designed three categories to reflect marital status: 1) single (including also divorced or separated), 2) married, and 3) widowed. The variable of self-reported health was based on subjective self-reports and was coded into three different categories: 1) good and very good, 2) neither good nor bad, and 3) bad and very bad. The variable place of residence was coded in three categories: 1) city with more than 100 000 residents, 2) city with less than 100 000 residents, and 3) rural areas. The monthly household equalised income per person variable was coded into four different

categories: 1) no information about income (refusal which could be treated as missing, but in this category, specifically in the context of labour market we decided not to exclude it from the analysis since this category is very common in Polish surveys, particularly among people who are either unemployed or cannot declare any official income), 2) low (less than 1500 PLN²), 3) medium (between 1500 and 3000 PLN), and 4) high income (more than 3000 PLN).

Analytic Strategy

The endogenous variable, considered in this paper, has four levels, thus we used a multinomial logistic regression model as proposed by Luce (1959). More information about the model can be found in Hosmer and Lemeshow (2000), Collett (2003) and Allison (2009). The purpose of our analysis was to examine the probability of occupying a specific labour market position in comparison to being employed, given various living and family situations.

Let us consider n individuals and individual i , $i = 1, \dots, n$, must choose one of J disordered categories. Let p_{ij} denote the probability that individual i falls into category j :

$$P(y_i = j | \mathbf{x}_i) = p_{ij}$$

where $\mathbf{x}_i$ is a column vector of k explanatory variables $\mathbf{x}_i = (x_{i0}, x_{i1}, \dots, x_{ik})'$. Let $\boldsymbol{\beta}_j$ be a row vector of coefficients for category j . Then

$$p_{ij} = \frac{\exp(\boldsymbol{\beta}_j \mathbf{x}_i)}{\sum_{t=1}^J \exp(\boldsymbol{\beta}_t \mathbf{x}_i)}, j = 1, \dots, J$$

denote probabilities, and these probabilities must add up to one. Moreover, one category is chosen as a baseline category, which is a reference for the interpretation of the parameters for

² Exchange rate as by April, 2018 EUR 1 = PLN 4.18, www.ecb.eu

all the other categories. In this paper the reference category is employed. Transforming the last equation, we obtain:

$$p_{i1} = \frac{1}{1 + \sum_{t=2}^J \exp(\beta_t \mathbf{x}_i)}$$

and

$$p_{ij} = \frac{\exp(\beta_j \mathbf{x}_i)}{1 + \sum_{t=2}^J \exp(\beta_t \mathbf{x}_i)}, j = 2, \dots, J$$

We investigate $J = 4$ categories; apart from employment, unemployed/ dealing with home or family, disability or sick/other economic inactivity, retired. Therefore, we obtain 3 equations:

$$\log\left(\frac{p_{i2}}{p_{i1}}\right) = \beta_{20} + \beta_{21}x_{i1} + \beta_{22}x_{i2} + \dots + \beta_{2k}x_{ik},$$

$$\log\left(\frac{p_{i3}}{p_{i1}}\right) = \beta_{30} + \beta_{31}x_{i1} + \beta_{32}x_{i2} + \dots + \beta_{3k}x_{ik},$$

$$\log\left(\frac{p_{i4}}{p_{i1}}\right) = \beta_{40} + \beta_{41}x_{i1} + \beta_{42}x_{i2} + \dots + \beta_{4k}x_{ik}.$$

The maximum likelihood method was used to estimate the model parameters. Given the socio-political context of Poland, we divided grandmothers and non-grandmothers into those aged 45-60 (60 is an official retirement age for women in Poland) and 60+. However, due to a very low prevalence of working women in the age group 60+, we were unable to conduct separate analysis. Thus, the multinomial logistic regression model described above was first applied to all grandmothers aged 45+ and all non-grandmothers aged 45+. Thereafter, we used the same model to explore the situation of grandmothers aged 45-60 and non-grandmothers aged 45-60. The covariates related to the family situations needed to be different in models investigating the situation of grandmothers and non-grandmothers. For instance, in the model regarding grandmothers we considered covariates, such as the age of becoming a grandmother, the number of grandchildren and assistance in child care, which were not used for the other group of women.

The results obtained for grandmothers aged 45+ and non-grandmothers aged 45+ show a similar pattern as observed among grandmothers aged 45-60 and non-grandmothers aged 45-60. Thus, in the results reported below, we present only those for grandmothers and non-grandmothers aged 45-60. In addition, we only report results that at least for one category of the analysed variable were proven to be statistically significant (p-value less than 0.05).

Results

Socio-economic outlook of grandmothers and non-grandmothers aged 45-60 and 60+

Table 1 offers an overview of the socio-demographic characteristics of our sample. From the very beginning, we look separately at grandmothers and non-grandmothers in two age groups: 45-60 and 60+. What comes forward is a rather unique socio-economic profile of grandmothers aged 45-60. With an average age of 55.16, they began their family caring roles very early. At the average of 22.31 when having a first child, they are the youngest mothers as compared to non-grandmothers and grandmothers aged 60+. Also, they are most likely to have 3 children and more (45.38%), which can be compared to 19.38% of non-grandmothers in the same age group who have 3 children and more. Grandmothers 45-60 became grandmothers earlier than women aged 60+: at age of 46.66 and 48.17 respectively. Younger grandmothers provided also much more childcare than older grandmothers: 31.18% and 18.29% respectively. Great majority of grandmothers aged 45-60 is married (70.63%), which can be compared to 53.92% of non-grandmothers in the same age group and 43.79% of grandmothers 60+.

The socio-economic situation of grandmothers aged 45-60 is particularly distinctive when compared to non-grandmothers in the same age group. For example, in terms of education, we observe that majority of women in all groups have secondary education. However, while the second largest group among non-grandmothers 45-60 is that of those with tertiary education (24.40); for grandmothers 45-60, the second largest group is comprised of those with vocational education (32.93) and only 7.01% have tertiary education in this group. Also, the prevalence of

women with primary education among grandmothers 45-60 is much higher than among non-grandmothers in the same age group: 23.44% and 8.53% respectively. Grandmothers aged 60+ have the highest level of women with primary education only: 40.12%. For a comparison, 25.77% of non-grandmothers in the same age group declares primary level education only.

Apart from being less educated, grandmothers 45-60 are retired to a larger extent than their peers without grandchildren: 31.42% and 20.18% respectively. The employment levels between those groups differ as well with 31.66% grandmothers compared to 48.69% non-grandmothers in employment. Interestingly, the proportion of women dealing with home and care duties and those economically inactive due to illness or disability was very similar for both groups: approx.15% non-grandmothers and approx.18% grandmothers. Grandmothers and non-grandmothers aged 60+ hardly differ in their employment status, with the majority being retired: 87.02% and 86.71% respectively.

Considering health status, non-grandmothers aged 45-60 appear to be the healthiest: 49.20% reports good and very good health, and only 12.95% describes their health as bad or vary bad. The percentage of women declaring bad or vary bad health is largest among 60+ group: 25.97% non-grandmothers and 30.19% grandmothers report that. Considering household income, the percentage of women declaring high income was greatest among non-grandmothers 60+ (28.63%) and lowest among grandmothers 45-60 (16.50%). Grandmothers 45-60 had the highest percentage (28.16%) of women declaring low income. Women aged 45-60 with and without grandchildren were similar with regards to the percentage of those declaring middle income (18.49% and 15.36% respectively) and refusing to declare their income (36.86% and 40.46% respectively). Women aged 60+ had higher rates of those in the middle-income group: 26.58%- non-grandmothers and 27.39% grandmothers. While the proportion of women living in big cities was similar in all groups, many more grandmothers as compared to non-

grandmothers lived in rural areas: for the ages 45-60, 27.71% non-grandmothers compared to 38.25%, and among those aged 60+, it was 20.25% and 32.60% respectively.

Considering family living arrangements, multigenerational households were more prevalent among women aged 45-60. In that group, great differences emerge as to co-resident parents and children. While among non-grandmothers 45-60, 11.24% lived with their parents and 30.72% with their children; only 5.02% grandmothers lived with their parents, but 43.56% lived with their children. In the group 60+, the greatest differences consider living with children: 5.11% non-grandmothers and 20.43% grandmothers declare that. Approx. 30% of all women in our sample had a person/s with disability in their household. The question regarding disability was framed in a way that did not make distinctions between one's own and others' disability. Given the relatively high level of bad or very bad health declared by women 60+, women in that age could have referred to their own disability. In the case of women aged 45-60, it is likely that disability referred to either children or a spouse

Women's attitudes regarding family care arrangements were similar. Clear differences emerged between grandmothers and non-grandmothers in relation to grandchild care. In the age group 45-60, the percentage agreeing that grandparents should take care of grandchildren was 56.73% for non-grandmothers and 72.63% for grandmothers. In the 60+ group, it was 63.60% and 74.68% respectively.

<Insert Table 1 about here>

Labour market position of non-grandmothers aged 45-60

The results of logistic regression for non-grandmothers aged 45-60 are presented in Table 2. They are based on the estimation of the chance of being a) unemployed/dealing with home/care duties, b) disability or sick/or other economic inactivity, and c) being retired in comparison to being employed. First, Model 1 displays such estimations in relation to different family

situations, such as living with older parents, living with a person with disabilities and living with a child. The second model (Model 2) shows estimations for various socio-economic variables, such as age, education, marital status, self-reported health, place of living, and income. Finally, the third model (Model 3) reports on the results for the combined effect of family situation and socio-economic variables on the employment status of women 45-60 45+ without grandchildren. The quality of those three models varies. While Models 2 and 3 are relatively good (Model 2, R – Square= 0.5497; Model 3, R – Square= 0.4301), Model 1 is of inferior quality (Model 1, R – Square is 0.2634). That is why we decided to base our interpretations only on Model 3, although the results for all models are presented.

Among three different family situations, disability in the household is the only case that appears to have a negative effect on non-grandmothers' 45-60 labour market position. However, while increasing the chance of being retired (OR=1.779) and moving into disability/sick-related and other economic inactivity (OR= 10.484), disability in the household is not statistically significant for predicting unemployment/dealing with home family duties. No statistically significant effects of co-resident children were found.

The family situation related to living with older parents reduces chances of withdrawing from the labour market into retirement and disability/sick/economic inactivity as compared to being employed. This means that co-resident parents can play an important enabling role for women's 45-60 labour market position, especially with reference to retirement. The positive effect of co-resident parents on retirement is noted regardless of parents age and disability.

The level of education is a single most important socio-economic variable when considering various labour market positions. For example, the chances of being unemployed/dealing with home duties for a woman with primary education compared to the group women with a tertiary education are over 41.561 times higher, and the chances of disability or sick/other economic inactivity are 6.529 times higher. Vocational education is also important for chances of being

unemployed/dealing with home/care duties (OR=15.180) and of being inactive due to other reasons (OR=2.851). The importance of secondary education as compared to a tertiary education is similar in reducing chances of being employed with a stronger effect for the unemployment (OR=7.640), and weaker for being inactive due to other reasons (OR=2.079). Interestingly, the relation between levels of education and retirement is not significant.

Regarding marital status, it does not seem significant in predicting unemployment/ dealing with home duties. However, it does play a significant role in terms of predicting other labour market positions. The chances for disability or sick/other economic inactivity or being retired were higher among widowed women as compared to married women (OR = 5.111 and OR = 3.310 respectively). Being single as compared to married also increases the chances for disability or sick/other economic inactivity (OR=1.801), but no significant effect for retirement.

As expected, the better the health, the lower the chances of withdrawing from the labour market into any of the three positions examined, having two of three of these statuses examined. Neither the number of children nor co-resident children had a significant effect on the labour market position. None of the three questions related to attitudes towards various forms of care were found significant.

Place of residence was not found statistically significant, while low and medium income increased the chances of being unemployed/dealing with home duties and moving to disability/sick-related and other economic inactivity. While low income was not statistically significant for chances of retiring as compared to being employed, those with medium income had higher chances for retiring than being in employment as compared to those with high income (OR=1.911).

<Table 2 about here>

Labour market position of grandmothers aged 45-60

The results of logistic regression for grandmothers 45-60 are presented in Table 3. As for women without grandchildren, we analysed step by step which variables mattered most to the labour market position of grandmothers: Model 1 (only family situation variables), Model 2 (socio-economic variables) and Model 3 (both sets of variables). While the models were not of a very high quality when examining the situation of non-grandmothers 45-60, the situation was different with grandmothers. That particularly concerns Model 1 with only family situation-related variables (R Square = 0.3038), but also socio-economic variables (R – Square=0.2419). However, on the whole, much more variance is explained when both sets of variables are combined in Model 3 (R – Square is equal to 0.4200). Thus, similarly to the earlier section, we based our interpretations mainly on Model 3.

Interestingly, living with a child and living with a parent decreases chances of being retired compared to being employed (OR about 0.498 and 0.356 respectively). Living with a parent has no significance on either being unemployed/dealing with home/care duties or disability or sick/other economic inactivity. The effect of just having an older parent 75+ does not increase the chances for labour market withdrawal; on the contrary, having an older parent 75+ decreases chances for retiring and moving into disability/sick-related or other economic inactivity. The effect of parents limited ability was not found significant and is thus not presented.

A disabled person in the household increases the chances of disability or sick/ other economic inactivity (OR = 6.441), but it has no significant effect on chances for being unemployed/dealing with home duties or retired. When looking at different ages of grandchildren, we can observe that regardless of their age, it either decreases the chances of withdrawing from the labour market to one of the examined positions or has no significance. An explicit assistance in childcare was an important aspect regarding grandchildren. Our results show that this form of unpaid care work increases chances of withdrawing from the labour market to all three positions, and to a similar extent (OR between 1.776 and 2.312). In addition,

agreement with the statement that care of children under the age of 3 should be the prime responsibility of family increased chances for being unemployed/dealing with home (OR=1.736) but had no significant effect on other types of labour market withdrawal. Agreement with the statement that mainly family should care for older persons reduced chances of withdrawing from the labour market into all positions examined.

Primary education puts women at the risk of being unemployed/dealing with home/care duties (OR=10.499), disability or sick/other economic inactivity (OR=6.144), but it is not significant in case of retiring. Interestingly for that group of women, secondary and vocational education compared to those with tertiary increases chances for being unemployed/dealing with home duties, but it lowers chances for being retired. In addition, vocational education increases chances for disability or sick/other economic inactivity.

Being widowed as compared to being married, increases chances for disability or sick/other economic inactivity (OR = 2.737), but it decreases chances for being unemployed. Singlehood, as compared to being married, decreases chances for unemployment and retirement. A better self-reported condition of health decreases chances for the labour market withdrawal. The income status shows that low and middle incomes increase chances of withdrawing from the labour market to unemployment and disability; in addition, low income increases chances for retirement (OR=1.667). The place of residence shows that living in a city with the population of 100.000 residents and more in relation to rural areas increases chances of being in one of the three examined labour market situations as compared to being employed (OR= 1.412-1.485).

<Table 3 insert about here>

Discussion

This main objective of this article was to explore the ways in which grandmotherhood overlaps with other family and working life roles among women aged 45+ in Poland. In attending to

that, we looked separately at women aged 45+ with grandchildren and without grandchildren to determine the extent and the ways in which grandmotherhood (not grandparental care) affects the labour market position of working age women in Poland. We divided all women into two age categories: a) 45-60 and b) 60+ to conduct separate analysis reflecting the institutional setting of the Polish pension system that makes the age of 60 an official retirement age for women. The specific analysis focusing on various labour market positions and family situations among grandmothers and non-grandmothers was however conducted only on those aged 45-60. Thanks to that, we could observe the similarities and differences between grandmothers and non-grandmothers regarding their socio-economic position, family situations and patterns of labour market participation. Noteworthy, rather than comparing the two groups, we aimed at demonstrating their different contexts of labour market participation. The direct comparison of women with and without grandchildren would be limited only to the variable that are present in both groups, thus, variables related to grandmotherhood would not be possible to use.

The main finding of our study is that grandmothers and non-grandmothers represent two very different groups of women regarding their socio-. economic status, family situations and labour market participation. In addition to confirming our expectations regarding greater levels of labour market withdrawal among grandmothers, we find a particularly disadvantaged situation of grandmothers aged 45-60 in terms of their place of living, level of education, and household income. In many cases, their situation is more similar to women aged 60+ rather than to their peers who are non-grandmothers. Furthermore, at the level of conducting analysis, we observed differences in the quality of models used suggesting that socio-economic aspects appear to be more important when considering the labour market position of women without grandchildren, while family situation and care aspects matter more to the group of women with grandchildren. This means that grandmotherhood can potentially lead to greater degrees of care accumulation. Discussing care accumulation, Železná (2018) observed that at the individual level, we may

deal with an overall tendency to care which make some people more prone to take up intergenerational duties simultaneously. What that tendency to care exactly is and how it affects, for example, working life, Železná, (2018) left as an open question to explore. Our study provides some insights into those concerns.

When analysing grandmothers and no-grandmothers separately, we find that the main risk factors potentially impeding on the labour market participation of non-grandmothers are low levels of education, disability in the household, widowhood and low and middle-level income. The same aspects are found relevant when analysing the situation of grandmothers too. However, in addition, one of the main factors increasing chances for the labour market withdrawal among grandmothers into all three examined positions was assistance in childcare. Living in a large city also increased grandmothers' chances for the labour market withdrawal. This may be related to their generally lower levels of education, implying that residing in urban areas poses a risk rather than an enabling factor for grandmothers' 45-60 employment.

Considering factors that may have positive effects on women's 45-60 labour market position, we also find differences between the groups of grandmothers and non-grandmothers. In case of non-grandmothers, protective factors relate to their older parents. Our results reflect therefore findings of an Italy-based study (Pagani and Marenzi, 2008) demonstrating an enabling effect of co-resident parents on women's 45-60 labour market participation. While the same can be observed among grandmothers, there are also other aspects that become relevant. For example, co-residing children and attitude regarding the importance of family care of older persons had the same positive effect. Surely, these results merit further attention and examination of multigenerational households and the direction of care transfers. This is further necessitated by the fact that the multigenerational co-residence becomes more important particularly in the time of economic crisis and housing shortages (Keene and Batson, 2010).

Living with a person with a disability had a negative effect on the labour market position for both groups of women. Due to the data limitations, we could not identify who the person with a disability was: a parent, a partner, a child or the respondent herself. However, given the results regarding the low prevalence of living with parents and relatively low percentage of women declaring bad or very bad health, we can only assume that the situation refers mainly to partners and/or children. The finding regarding the impact disability is also important, given that approx. 30% of women in both groups declare to have a person with disabilities in their households.

Contemporary forms of grandparenthood, or rather grandparenting as Timonen and Arber (2012) emphasize, stretch over long periods of time thanks to greater longevity and may involve diverse practices that are negotiated by generations of children, parents and grandparents. This makes grandparenthood as a role a rather diversified and complex. With no definite content, ideas about and the role of grandparents are to a large extent built upon socio-cultural expectations coming from family members representing different generations (Thiele & Whelan, 2006). In Poland, a familialistic welfare state, those expectations regarding grandmothers are very clear: they should be available for providing care to their grandchildren. Our study demonstrates that such expectations have clear material consequences. Middle-aged and older women become the individuals that are relegated to ‘helping out’ their grandchildren, their disabled partners and other family members. More than, they also internalize such a view. In the studied sample, we found that approx. 60% of non-grandmothers agreed with a statement that grandparents should look after their grandchildren. Regardless of their age, over 70% of grandmothers expressed the same attitude.

Grandmothers aged 45+ who leave the labour market lose not only their income but also a chance for a pension that could offer a decent quality of life. In other words, we demonstrate that the costs of grandmotherhood among women aged 45-60 must be recognised and addressed as an urgent social policy issue. We also concur with the findings of a recent study that

examined the relationship between quality of life and informal caring among women in Europe and suggested that policies responding to work-life (im)balance problems must be carefully designed to target the specific aspects of a given socio-economic and political situation in a given country (Di Novi, Jacobs and Migheli, 2015). One size does not fit all. For example, while evidence from China suggests that the introduction and strengthening of formal child care programs may have important effects on enabling labour force participation among women aged 40-60 (Lin & Wang, 2017), Hochman and Lewin (2013) find that family policies do not mitigate preferences for retirement among grandparents in Europe. Frimmel et al. (2017), in their Austria-based study, extend that argument by demonstrating that grandmothers tend to reduce their workload to a greater extent in communities with formal childcare institutions rather than those without such institutions. This, as they explain, may be related to those institutions' working hours that make grandmaternal care an important complement to formal childcare.

Conclusions

Grandparenthood and, in this, grandmotherhood are family issues. However, as the changing demographic outlook of grandparents suggests, contemporary grandparenthood overlaps with other family, but, importantly, also working life roles. Increasingly, grandparenthood will therefore imply a prolonged overlap between family, working and leisure life issues. That period will only become longer in the context of extended working lives policies and active ageing initiatives around the world. Our article is among few pioneering studies that emphasize the importance of studying the ways in which grandparenthood as a family role interacts with other family and non-family related areas, even if it does not directly concern grandparental care. More specifically, we demonstrate the variety of family situations that impact differently the labour market position of grandmothers and non-grandmothers. In this, we highlight the need for the development of focused and concrete measures to support a large segment of working age population that prematurely withdraws from the labour market.

Study limitations

This article is based on the analysis of cross-sectional data from GSS. While it provides a good insight into the varied situation of grandmothers and non-grandmothers at the labour market in Poland, it cannot draw any conclusions regarding the causal relationship between grandmotherhood and employment. This means that we are not able to address the question concerning the timing of different events among our study group, e.g. are we observing women who left the labour market upon becoming grandmothers, or women who left the labour market very early and became grandmothers afterwards?

The data regarding different family situations and potential care duties as used in this article cannot be seen as an accurate measure of integrational care. It is only in the case of grandparental care that we had direct access to information. Regarding the care of older parents, we did not have a direct measure but instead relied on the closest possible variables, which were living with older parents, having parents 75+, and parents limited ability. Importantly, the question from the survey that we used did limited answers only to birth parents, thus excluded the situation of parents-in-law. Nor could we capture the situation of women who care for older parents and parents-in-law living outside their own households. Also, the question regarding disability in the household did not provide indication as to who that term may refer to; this means that potential self and/or others disability might have been reported.

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Table 1. Sample characteristics: women in age 45-60 and 60+ years old with and without grandchildren.

Characteristics	Categories	Women without grandchildren		Women with grandchildren	
		From 45 to 60 years old	60+ years old	From 45 to 60 years old	60+ years old
Age	<i>Mean</i>	52.95	68.23	55.16	69.30
Age at first child	<i>Mean</i>	24.70	26.69	22.31	23.12
Age at becoming grandmother	<i>Mean</i>	-	-	46.66	48.17
Place of residence	<i>City 100 000 residents and more</i>	49.10	48.26	46.22	46.90
	<i>City under 100 000 residents</i>	23.19	31.49	15.53	20.50
	<i>Rural areas</i>	27.71	20.25	38.25	32.60
Education	<i>Primary</i>	8.53	25.77	23.44	40.12
	<i>Vocational</i>	20.68	11.45	32.93	17.28
	<i>Secondary</i>	46.39	43.56	36.62	32.98
	<i>Tertiary</i>	24.40	19.22	7.01	9.62
Marital status	<i>Single, divorced or in separation</i>	35.84	41.31	12.33	7.83
	<i>Widowed</i>	10.24	33.95	17.04	48.37
	<i>Married</i>	53.92	24.74	70.63	43.79
Self-reported health	<i>Very good and good</i>	49.20	21.88	38.49	20.29
	<i>Neither good or bad</i>	37.85	52.15	45.92	49.53
	<i>Bad and very bad</i>	12.95	25.97	15.59	30.19
Household income per person	<i>Refusal/No answer</i>	40.46	29.04	36.86	28.65
	<i><=1500 PLN</i>	20.28	15.75	28.16	21.02
	<i>>1500 PLN and <=3000 PLN</i>	15.36	26.58	18.49	27.39
	<i>>3000 PLN</i>	23.90	28.63	16.50	22.95
	<i>0</i>	33.63	66.87	-	-
Number of children	<i>1 child</i>	16.16	17.18	10.09	15.56
	<i>2 children</i>	30.82	12.27	44.53	42.67
	<i>3+ children</i>	19.38	3.68	45.38	41.76
Co-resident parents	<i>Yes</i>	11.24	4.91	5.02	1.26
Disability in households	<i>Yes</i>	29.82	29.86	32.81	31.79
Co-resident child	<i>Yes</i>	30.72	5.11	43.56	20.43
Parents aged over 75 year	<i>No</i>	17.27	-	11.06	0.03
	<i>Yes</i>	29.12	6.54	28.40	7.52
	<i>No, parents are dead</i>	53.61	93.46	60.54	92.44
Parents' limited ability	<i>Yes</i>	9.04	2.04	8.16	2.41
Attitude 1: Caring for the elderly in their home if they need it	<i>Mainly family</i>	30.22	25.97	35.05	32.00
Attitude 2: Childcare under 3 years old	<i>Mainly family</i>	76.10	80.78	79.09	78.00
Attitude 3: Grandparental care	<i>Grandparents should look after their grandchildren</i>	56.73	63.60	72.63	74.68
Number of grandchildren	<i>1</i>	-	-	29.67	12.49
	<i>2</i>	-	-	26.77	18.54
	<i>3</i>	-	-	17.89	15.08
	<i>4 and more</i>	-	-	25.68	53.90
Age of grandchildren	<i>0-3 years</i>	-	-	21.03	1.64
	<i>4-8 years</i>	-	-	32.08	5.18
	<i>9-16 years</i>	-	-	39.21	18.57
	<i>17 years and more</i>	-	-	7.67	74.61
Assistance in child care in the last year	<i>Yes</i>	-	-	31.18	18.29
Positions in the labour market	<i>Employed</i>	48.69	4.09	31.66	1.43
	<i>Unemployed/ dealing with home or family</i>	15.26	1.84	18.55	2.31
	<i>Disability or sick/other economic inactivity</i>	15.86	7.36	18.37	9.23
	<i>Retired</i>	20.18	86.71	31.42	87.02
Total	5999	996	489	1655	2859

Table 2. Odds ratios in multinomial logistic regression models for women in age of 45 to 60 years old without grandchildren.

			Model 1			Model 2			Model 3		
			Unemplo yed/ Dealing with home or family	Disabili ty or sick/oth er econom ic inactivi ty	Retired	Unemplo yed/ Dealing with home or family	Disability or sick/other economic inactivity	Retire d	Unemplo yed/ Dealing with home or family	Disabilit y or sick/othe r economi c inactivit y	Retired
Care	Disability in households	<i>Yes</i>	1.990	16.472	1.950				ns	10.484	1.779
	Co-resident child	<i>Yes</i>	ns	0.599	0.453				ns	ns	ns
	Co-resident parents	<i>Yes</i>	0.430	0.324	0.182				ns	0.438	0.194
	Parents aged over 75 year	<i>No</i>	0.593	0.382	0.068				ns	ns	0.080
		<i>Yes</i>	0.434	0.443	0.497				0.478	ns	0.618
Socio-economic		<i>No, parents are dead (ref.)</i>									
	Parents' limited ability	<i>Yes</i>	ns	2.910	2.495				ns	ns	ns
	<i>Age</i>					ns	1.164	1.990	ns	ns	ns
	<i>Education</i>	<i>Primary</i>				42.498	6.160	Ns	41.561	6.529	ns
		<i>Vocational</i>				15.805	3.451	Ns	15.180	2.851	ns
		<i>Secondary</i>				8.106	2.057	Ns	7.640	2.079	ns
		<i>Tertiary (ref.)</i>									
	<i>Marital status</i>	<i>Single,</i>									
		<i>divorced or in separation</i>				ns	ns	ns	ns	1.801	ns
		<i>Widowed</i>				ns	2.981	ns	ns	5.111	3.310
	Self-reported health	<i>Married (ref.)</i>									
		<i>Very good and good</i>				0.619	0.048	0.504	ns	0.068	ns
		<i>Neither good or bad</i>				ns	0.200	ns	ns	0.250	ns
		<i>Bad and very bad (ref.)</i>									
	Household income per person	<i>Refusal/No answer</i>				1.937	ns	ns	3.714	ns	ns
		<i><=1500</i>				7.172	8.140	2.543	5.710	3.271	ns
		<i>>1500 and <=3000</i>				3.629	3.842	ns	3.079	3.101	1.911
		<i>>3000 (ref.)</i>									
	Number of children	<i>0</i>				ns	2.479	ns	ns	ns	ns
		<i>1 child</i>				ns	3.748	ns	ns	ns	ns
		<i>2 children</i>				ns	ns	ns	ns	ns	ns
		<i>3+ (ref.)</i>									
	Sample size		152	158	201	152	158	201	152	158	201
	R-Square			0.2634			0.5497			0.4301	

Table 3. Odds ratios in multinomial logistic regression models for women in age of 45 to 60 years old with grandchildren.

Variables			Model 1			Model 2			Model 3		
			Unemplo yed/ Dealing with home or family	Disability or sick/other economic inactivity	Retired	Unemployed / Dealing with home or family	Disability or sick/other economic inactivity	Retired	Unemployed / Dealing with home or family	Disability or sick/other economic inactivity	Retire d
Care	Disability in households	<i>Yes</i>	1.425	8.090	ns				ns	6.441	ns
	Coresident child	<i>Yes</i>	ns	0.622	0.512				0.584	0.510	0.498

Socio-economic	Coresident parents	Yes	ns	ns	0.339				ns	ns	0.356
	Parents aged over 75 year	No	ns	0.320	0.069				0.655	0.353	0.062
		Yes	ns	0.531	0.623				ns	0.657	0.630
		No, parents dead (ref)									
	Attitude 1: Elderly care	Mainly family	0.678	0.671	0.645				0.632	0.654	0.656
	Attitude 2: Childcare	Mainly family	1.559	1.619	ns				1.736	ns	ns
	Age of grandchildren	0-3 years	ns	0.058	0.052				ns	0.101	0.053
		4-8 years	ns	0.095	0.121				ns	0.156	0.123
		9-16 years	ns	0.159	0.239				ns	0.220	0.252
		17 years and more (ref.)									
	Assistance in child care in the last year	Yes	1.898	2.325	1.743				1.818	2.312	1.776
	Education	Primary				11.265	11.884	ns	10.499	6.144	ns
		Vocational				6.641	8.568	0.572	6.194	5.435	0.393
		Secondary				3.954	5.231	ns	3.738	ns	0.591
		Tertiary (ref.)									
	Marital status	Single, divorced, in separation				0.537	ns	ns	0.496	ns	0.461
		Widowed				0.317	2.092	ns	0.284	2.737	ns
		Married (ref.)									
	Self-reported health	Very good and good				ns	0.061	0.487	ns	0.108	0.532
		Neither good nor bad				0.561	0.216	0.573	ns	0.296	ns
		Bad and very bad (ref.)									
	Household income per person	No answer				2.519	1.899	ns	2.856	ns	ns
		<=1500				3.331	2.788	ns	4.107	2.670	1.667
		>1500 and <=3000				1.914	2.568	ns	2.165	2.334	ns
		>3000(ref.)									
	Place of residence	City				ns	ns	1.566	1.412	1.485	1.442
		=>100 000 residents									
	Rural areas(ref.)										
Number of grandchildren	1				ns	0.595	0.338	ns	ns	ns	
	2				1.561	ns	0.642	ns	ns	ns	
	3				ns	ns	ns	ns	ns	ns	
	4+ (ref)										
Sample size		307	304	520	307	304	520	307	304	520	
	R-Square	0.3038			0.2419			0.4200			