

& Sociology

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# **EXPECTATIONS OF FULFILLING** THE GRANDPARENT ROLE IN THE **CONTEXT OF MAINTAINING PROFESSIONAL ACTIVITY.** ANALYSIS OF AN INTERNATIONAL SURVEY

ABSTRACT. This article aims to assess the expectations of fulfilling the role of grandparents in the context of maintaining professional activity. In the study, data from an international survey conducted using a proprietary questionnaire (the CAWI method) among representatives from 7 European countries was used. The main objective was to find possible differences in the perception of the grandmother's and grandfather's roles depending on the characteristics of the respondent. The survey was conducted in May 2022, and the total research sample was 3,008 people. The analysis focused on the respondents' answers to eight statements on taking care of grandchildren and work-related decisions. The study employed exploratory factor analysis and non-parametric tests (Mann-Whitney U test and Kruskal-Wallis test) to check for differences in assessments according to the respondent characteristics. Statistically significant differences were found between the answers of respondents who differ in age, gender, and place of residence. Factor analysis made it possible to identify two factors: the first one may be named 'long-term support' and the second factor may be labelled 'temporary emergency care'; this provided a basis for synthesising the analysed statements.

Keywords: working grandparents, quantitative research, comparative analysis, statistical analysis of survey results, exploratory factor analysis

# Introduction

For a long time, in many European societies, it was accepted that grandparents substantially supported the care of their grandchildren. The situation changed significantly when the baby boomers started to become grandparents and reached (pre-)retirement age. For many representatives of this generation, professional work is a value in itself and is perceived as a field of self-development. In addition, the economic situation of many households as well as the process of population aging causing the shrinkage of the labour force make it necessary for baby boomers to remain in the labour market longer. Bearing in mind these changes, we made an attempt to assess current expectations of fulfilling the role of grandmother and grandfather using research material collected in seven countries among adult respondents aged 18-65.

The research aimed to obtain opinions concerning people who became grandparents, mainly those who were professionally active, or to compare people who were professionally active and inactive. It also aimed to assess the impact of professional activity on the family situation, to gather opinions about involving grandparents in taking care of grandchildren and the forms of care provided. The study used the data from an international survey based on a proprietary questionnaire (the CAWI method) conducted among representatives from 7 European countries. The survey was conducted in May 2022, and the total research sample was 3,008 people.

The authors attempted to evaluate current expectations of the role of grandmother/ grandfather expressed by adult representatives of selected European societies. Using the results of an international survey, answers were sought to the following two research questions:

- 1. Are there statistically significant differences in perceptions of the role of grandmother and grandfather according to respondent characteristics such as age, gender or country of residence?
- 2. Is it possible to identify a universal pattern in how the role of grandmother/ grandfather is perceived by the representatives of European societies? In other words, is it possible to create a summative scale for questions relating to the grandmother/ grandfather's involvement in taking care of their grandchildren?

In the study, due to the nature of the data, the non-parametric tests (Mann-Whitney U test and Kruskal-Wallis test) to check for differences in assessments according to the respondent characteristics were used. Exploratory factor analysis (EFA) was used to search for a possible universal pattern in the perception of fulfilling the role of grandmother and grandfather.

# **1. Literature review**

Grandparents have taken care of their grandchildren for generations and have played various roles in family life (Link, 1987). After reaching adulthood (usually around 55-60 years old), their lives were more or less subordinated to supporting their children in raising their offspring. This concerned mainly women, whose professional work, if it took place at all, was treated as something additional, even temporary, compared to their responsibilities as mothers or grandmothers. The situation has radically changed for the generation of baby boomers, whose representatives value professional work as for them it is an opportunity for selfdevelopment and fulfilment in many fields (Bouvier, L.F., De Vita, C.J., 1991; Scholz, 2019; Philkhana, Raja, Giridhar, 2019; Silva at al., 2015; Brown, 2012; Zhang, J., Emery, T., Dykstra, P., 2020). Today's 50- or 60-year-olds often have their career plans, want to be professionally active (Boveda and Metz, 2016; Tacchino, 2013; Taylor et al., 2014), and take over the care of grandchildren to a lesser extent. In addition, the financial situation of many households and also the observed socio-demographic processes, above all the ageing of the population, speak in

favour of baby boomers remaining on the labour market. Such a phenomenon has not been seen before, but it entails many consequences in different areas, e.g.: the family model (Kaptijn et al.,2010; Rutigliano, 2020), state social policy (the need for childcare in nurseries or kindergartens) (Buchanan & Rotkirch, 2018) or management in work teams (generational diversity) (Höhler & Kühl, 2018). A key issue in the study was the detection of possible differences in perceptions between men and women. The literature indicates that women are much more involved in taking care of the elderly, children or grandchildren (Medeiros, Barbosa, et al., 2022; Horst, et al., 2017; Lee & Tang, 2015). It is also women who make up the vast majority of the so-called Sandwich Generation, that is, people who take care of younger and older family members at the same time (e.g. ageing parents, children and grandchildren) (Evans, Millsteed, et al., 2019; Rajahonka, Kwiatkowska-Ciotucha, et al., 2022). Therefore, it was important to check whether this greater involvement in family responsibilities towards dependants translates into a more critical attitude towards women (rather than men) who would like to continue their professional activity. For the first question, the following characteristics were taken into consideration - age, gender and country of residence - mainly because these characteristics of respondents are identified in the literature as particularly differentiating opinions (Cogin, 2012; Duxbury, Higgins & Smart, 2011; Ma, 2022). The different perceptions of the issues by men and women may result from the different nature of the roles performed by both genders regarding family life (Zanier & Crespi, 2015). Differences due to age may result from different attitudes toward work and family responsibilities presented by the representatives of different generations (Kim, H., Lee, S., 2018). Hence, for the characteristic of age, instead of equal age ranges, the following division into generations broadly accepted in the literature was applied: baby boomers, generation X, generation Y and generation Z. Possible differences in the perceptions of the role of grandmother/grandfather among respondents living in different countries can be explained by differences in cultural dimensions (Hofstede, 1980; Hofstede, Hofstede & Minkov, 2010; Kwiatkowska-Ciotucha, Załuska, at al., 2022). The extent and intensity of care may also be influenced by determinants associated with different welfare states and employment regimes in Europe (Hank and Buber, 2009).

# 2. Methodological approach

The comparative research on representatives aged 18 - 65 from seven European countries was conducted in May 2022 using computer-assisted Internet interviews (CAWI). It involved at least 500 people from Finland, Germany, Greece, Poland, Spain, and at least 250 people from Belgium (Flanders) and the Netherlands<sup>1</sup>. During the study, 3,008 complete questionnaires were collected. The characteristics of respondents according to the characteristics taken into account in the study are presented in Table 1.

The share of both genders in the research sample is comparable - around 50%, which is in line with its structure – people aged 18-65. As for generations, the share of the representatives of the oldest and youngest generations is about twice as low as that of the representatives of the other two generations, which is due to the birth years of the people participating in the study (roughly half of generation BB and generation Z). The research samples agreed for each country were equal except for the Flemish part of Belgium and the Netherlands, where the total number of respondents is comparable to the sample sizes of the other countries. The article analyses respondents' opinions on eight statements/questions concerning the expectations towards grandparents and their involvement in taking care of grandchildren (see Table 2). In all cases,

<sup>&</sup>lt;sup>1</sup> As for Belgium (Flanders) and the Netherlands, the reduced samples result from the inability to recruit such a large number of respondents due to the much less numerous CAWI panels for these countries than those previously mentioned.

the respondents could choose answers on the five-point Likert scale, where 1 meant 'I do not agree at all with the statement', whereas 5 - I completely agree with the statement'.

| Characteristic                   | Characteristic category | Percentage of   |
|----------------------------------|-------------------------|-----------------|
|                                  | 8,                      | respondents (%) |
| Sex                              | Female                  | 49.8            |
|                                  | Male                    | 50.2            |
| Age                              | Baby boomers (BB)       | 14.1            |
| Generational groups <sup>2</sup> | Generation X (X)        | 36.7            |
|                                  | Generation Y (Y)        | 32.3            |
|                                  | Generation Z (Z)        | 16.9            |
| Country                          | Belgium (BE)            | 8.3             |
|                                  | Finland (FI)            | 16.7            |
|                                  | Germany (DE)            | 16.7            |
|                                  | Greece (EL)             | 16.7            |
|                                  | Netherlands (NL)        | 8.3             |
|                                  | Poland (PL)             | 16.6            |
|                                  | Spain (ES)              | 16.7            |

| Table 1. A research sample – | a structure according to selected | characteristics ( $N = 3.008$ ) |
|------------------------------|-----------------------------------|---------------------------------|
|                              |                                   |                                 |

#### Table 2. Analyzed statements

| Symbol | Statement   |
|--------|---|
| Q1     | A woman should be prepared to cut down on her paid work if she becomes a grandmother          |
| Q2     | A man should be prepared to cut down on his paid work if he becomes a grandfather             |
| Q3     | If parents are in need of childcare, a grandmother should prioritize this above her paid work |
| Q4     | If parents are in need of childcare, a grandfather should prioritize this above his paid work |
| Q5     | If a grandchild is ill, a grandmother should be willing to stay home from work to allow the   |
|        | parents to go to their work   |
| Q6     | If a grandchild is ill, a grandfather should be willing to stay home from work to allow the   |
|        | parents to go to their work   |
| Q7     | A working grandmother should plan her days off during school holidays to look after her       |
|        | grandchildren   |
| Q8     | A working grandfather should plan his days off during school holidays to look after his       |
|        | grandchildren   |

To find the answer to the first research question, non-parametric statistical tests were used to check for differences in assessments according to respondents' characteristics. Depending on the number of categories for the selected respondents' characteristics, the following methods were applied:

Independent samples Mann-Whitney U test. This method was used for a characteristic with two categories, that is, the respondent's gender.

Kruskal-Wallis test (one-way analysis of variance on ranks). If the results showed significant differences, post hoc tests for multiple comparisons according to the procedure proposed by Dunn (Dunn, 1964) with Bonferroni correction were carried out to identify the pairs characterised by different distributions. This method was used for characteristics with more than two categories, such as age (generation groups) and country of residence. Due to a large number of combinations, in order to ensure the clarity of the presentation, the results of

<sup>&</sup>lt;sup>2</sup>According to the state in 2022 and the birth year of the respondents, the following generation groups were distinguished taking into account literature (Howe & Strauss, 2000; McCrindle, 2014; Scholz, 2019): BB (58-65 years old), X (42-57 years old), Y (26-41 years old), Z (18-25 years old)

the post hoc tests were illustrated in figures developed in a self-designed way. In the figures, statistically significant differences between pairs of feature categories (nodes in the form of rectangles) are represented by arrows. The beginning of the arrow indicates the category of the characteristic with the statistically lower value of the test variable mean rank, whereas the head - the correspondingly statistically higher value of the mean rank score.

The analyses take into account a threshold p-value at the level of 0.05, below which it was concluded that there are significant differences in the assessments of respondents characterised by different categories of characteristics.

To answer the second research question, correlations between variables relating to the perceptions of grandparents' role in taking care of their grandchildren were identified. The exploratory factor analysis was applied (EFA), in which several latent variables which can explain the correlations between many observed variables were searched for (Watkins, 2021). The exploratory factor analysis was preceded by a validity check. The adequacy of the correlation matrix was tested by Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test. Desirable results, indicating that the matrix can be factor analysed, include high KMO measure (above 0.8) and the significance of Bartlett's test (Pett, Lackey & Sullivan 2003). Initial factors were extracted by principal components analysis. The number of factors to retain for rotation was evaluated by objective criteria as the scree plot and the proportion of variance explained (Finch, 2019) supported by a subjective approach emphasizing possible interpretability. Orthogonal rotation was used to get "a simple structure" allowing for a better interpretation of the factors (Robins, Fraley & Krueger (Eds.), 2009). The varimax rotation approach was used where the variance is maximized across all factors (Gorsuch, 1983) to determine the final solution. Once the latent variables were identified a summative scale was applied to the variables defining the first factor most strongly, and an analysis was carried out based on the values for the scale thus created.

Calculations were performed using SPSS software and MS Excel.

## 3. Conducting research and results

The opinions of respondents on eight statements Q1 - Q8 were analysed. Nonparametric tests were used to infer if there are statistically significant differences in the perception of the role of grandparents depending on respondents' characteristics such as age, gender or country of residence. The exploratory factor analysis was used to search for and describe the pattern in the perception of the role of grandparents.

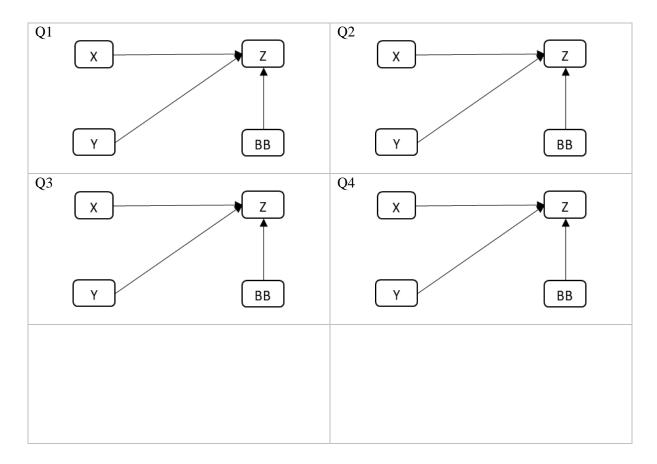
Table 3 shows the results of the Kruskal-Wallis test, where the grouping variable is the fact of belonging to a specific generation (that is baby boomers, X, Y or Z).

| Statement   | KW stat. | p-value |
|---|----------|---------|
| Q1. A woman should be prepared to cut down on her paid work if she becomes a grandmother                                    | 34.076   | < 0.001 |
| Q2. A man should be prepared to cut down on his paid work if he becomes a grandfather                                       | 26.367   | < 0.001 |
| Q3. If parents are in need of childcare, a grandmother should prioritize this above her paid work                           | 18.768   | < 0.001 |
| Q4. If parents are in need of childcare, a grandfather should prioritize this above his paid work                           | 15.047   | 0.002   |
| Q5. If a grandchild is ill, a grandmother should be willing to stay home from work to allow the parents to go to their work | 9.385    | 0.025   |

| Q6. If a grandchild is ill, a grandfather should be willing to stay home from work to allow the parents to go to their work | 9.390  | 0.025   |
|---|--------|---------|
| Q7. A working grandmother should plan her days off during school holidays to look after her grandchildren                   | 22.154 | < 0.001 |
| Q8. A working grandfather should plan his days off during school holidays to look after his grandchildren                   | 22.148 | < 0.001 |

The results of the Kruskal-Wallis test indicated significant differences (p-value ranging from < 0.001 to 0.025) for all statements in the distribution of the answers given by the respondents representing different generations. Post hoc approach using Dunn procedure with Bonferroni correction made it possible to carry out a detailed analysis of the differences. A synthesis illustrating differences in the perception of the role of grandmother/ grandfather between generations is shown in Fig. 1. Connections indicate differences, whereas the head of the arrow points to the higher mean rank of answers to a given statement. By analysing the connections, it is possible to indicate the existing patterns:

- the significant differences concern mainly generation Z in relation to the others,
- when significant differences are found, the mean ranks are always higher for generation Z,
- in as many as 4 out of 8 statements analysed it is possible to notice the same pattern: mean rank scores for generation Z are significantly higher than for all other generations, i.e. baby boomers, X and Y. These were the statements connected with cutting down on paid work if one becomes a grandparent, prioritizing care above paid work by grandparents when parents are in need of childcare,
- different results were obtained for the statement related to grandparents taking care of grandchildren during their illness. The need for providing such care by grandfathers was approved of to a greater extent by the representatives of Z generation than generation Y, while in the case of grandmothers, no differences between generations were found.



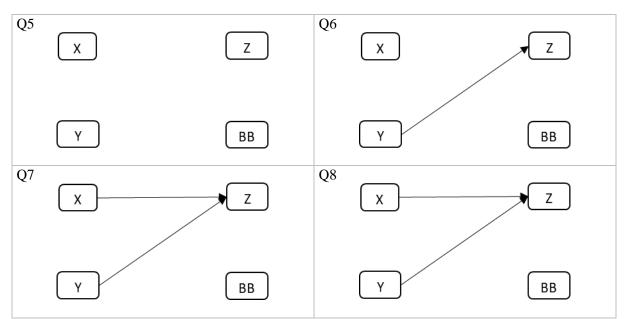


Figure 1. Visualization of significant differences in the answers to statements Q1-Q8 given by the respondents from different generations based on the post hoc tests.

Table 4 summarises the results of the Mann-Whitney U test for the answers given by women and men.

| Statement   | Standardized test statistic | p-value |
|---|-----------------------------|---------|
| Q1. A woman should be prepared to cut down on her paid work if she becomes a grandmother                                    | -10.174                     | < 0.001 |
| Q2. A man should be prepared to cut down on his paid work if he becomes a grandfather                                       | -9.449                      | < 0.001 |
| Q3. If parents are in need of childcare, a grandmother should prioritize this above her paid work                           | -10.018                     | < 0.001 |
| Q4. If parents are in need of childcare, a grandfather should prioritize this above his paid work                           | -9.995                      | < 0.001 |
| Q5. If a grandchild is ill, a grandmother should be willing to stay home from work to allow the parents to go to their work | -8.204                      | < 0.001 |
| Q6. If a grandchild is ill, a grandfather should be willing to stay home from work to allow the parents to go to their work | -8.862                      | < 0.001 |
| Q7. A working grandmother should plan her days off during school holidays to look after her grandchildren                   | -10.503                     | < 0.001 |
| Q8. A working grandfather should plan his days off during school holidays to look after his grandchildren                   | -9.709                      | < 0.001 |

Table 4. Mann-Whitney U test results for the grouping variable: gender

The results of the Mann-Whitney U test with regard to gender variable indicate that there were significant differences (p < 0.001) for all eight statements analysed. In each statement, the mean rank scores of the answers given by men were significantly higher than those of the answers given by women. The biggest difference (322.6) was noted for an opinion on whether a working grandmother should plan her days off during school holidays to look after her grandchildren, where the mean rank score for men was 1665.05 and 1342.45 for women. Other biggest differences were noted for the assessment of whether a woman should

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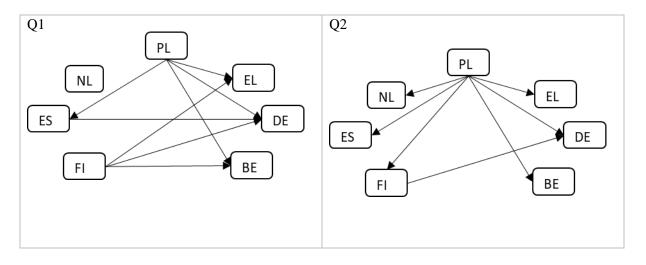
be prepared to cut down on her paid work if she becomes a grandmother with the mean rank of 1659.83 for men and 1347.72 for women and for the statement saying that if parents are in need of childcare, a grandmother should prioritize this above his paid work, with the mean rank of 1657.66 for men and 1349.91 for women. In three types of statements, the difference in mean rank scores was slightly higher when assessing attitudes towards grandmothers vs. attitudes towards grandfathers (limiting professional work when grandchildren appear, prioritizing care above paid work, adjusting their days off to school holidays, and taking care of grandchildren). In the case of staying home from work if a grandchild is ill, a reverse tendency was noted.

Table 5 shows the results of the Kruskal-Wallis test, where the grouping variable is country of residence of the respondent.

| Statement   | KW stat. | p-value |
|---|----------|---------|
| Q1. A woman should be prepared to cut down on her paid work if she becomes a grandmother                                    | 10.484   | < 0.001 |
| Q2. A man should be prepared to cut down on his paid work if he becomes a grandfather                                       | 12.216   | < 0.001 |
| Q3. If parents are in need of childcare, a grandmother should prioritize this above her paid work                           | 13.937   | < 0.001 |
| Q4. If parents are in need of childcare, a grandfather should prioritize this above his paid work                           | 14.707   | < 0.001 |
| Q5. If a grandchild is ill, a grandmother should be willing to stay home from work to allow the parents to go to their work | 14.190   | < 0.001 |
| Q6. If a grandchild is ill, a grandfather should be willing to stay home from work to allow the parents to go to their work | 10.869   | < 0.001 |
| Q7. A working grandmother should plan her days off during school holidays to look after her grandchildren                   | 16.556   | < 0.001 |
| Q8. A working grandfather should plan his days off during school holidays to look after his grandchildren                   | 18.287   | < 0.001 |

Table 5. The results of the Kruskal-Wallis test for the grouping variable: country of residence

The results of the Kruskal-Wallis test indicated significant differences (p < 0.001) in the distribution of answers given by the respondents in all the countries covered by the research for all the statements. Identification of significant differences between countries was carried out using Dunn procedure with Bonferroni correction. These differences are presented in Fig. 2. As in Fig. 1, the connections indicate significant differences, with the head of the arrow pointing towards the country where the mean rank of answers to a given statement was higher.



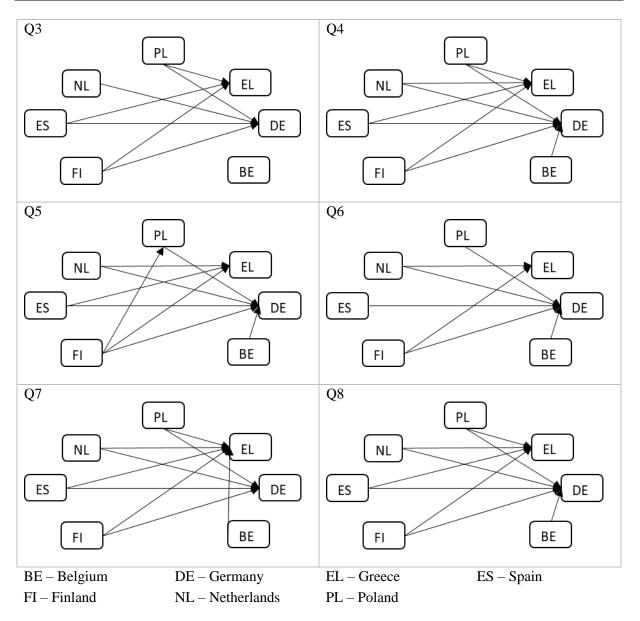


Figure 2. Visualisation of significant differences in the answers to statements Q1-Q8 given by the respondents from different countries based on post hoc tests

When analysing the figures presented, it should be noted that for all the statements there were significant differences in the answers given by the respondents from different countries taking part in the research. It is noteworthy that in two countries - Germany and Greece - the mean rank of answers for all the statements is higher than in any other country. However, in statements Q4 (If parents are in need of childcare, a grandfather should prioritize this above his paid work), Q7 (A working grandmother should plan her days off during school holidays to look after her grandchildren), and Q8 (A working grandfather should plan his days off during school holidays to look after his grandchildren) the mean rank values of their answers are higher than the mean rank values of the answers given by the respondents from Poland, the Netherlands, Finland and Spain. In the other statements, different countries, and in different configurations, have significantly lower mean rank values of responses than Germany and Greece. Another interesting observation concerns the low mean rank values of answers given to all the statements by the respondents from Finland and Poland. In these countries, no

significantly higher mean rank values of answers to the statements, compared to other countries taking part in the study, were observed. Moreover, for all the statements, the answers given by the respondents in Germany had significantly higher mean rank values than the answers given by those in Finland and Poland. In Finland, on the other hand, for all the statements the mean rank values were significantly lower than the mean rank values in Greece and Germany except statement Q2 (A man should be prepared to cut down on his paid work if he becomes a grandfather) (only Germany). Additionally, for statement Q1 (A woman should be prepared to cut down on her paid work if she becomes a grandmother) significantly higher values were obtained not only in Greece and Germany but also in Belgium. Quite similar were the mean rank values of answers in Poland, which were lower than those in Germany and Greece for almost all the statements. On the other hand, the mean rank values of the answers given by the respondents from Poland were significantly lower than those of the answers given by the respondents from other countries, depending on the statement. As far as statements Q3 (If parents are in need of childcare, a grandmother should prioritize this above her paid work), Q4. (If parents are in need of childcare, a grandfather should prioritize this above his paid work),Q7 (A working grandmother should plan her days off during school holidays to look after her grandchildren) and Q8 (A working grandfather should plan his days off during school holidays to look after his grandchildren) are concerned, significantly higher mean rank values were noted only in Greece and Germany. As for statements Q5 (If a grandchild is ill, a grandmother should be willing to stay home from work to allow the parents to go to their work) and Q6 (If a grandchild is ill, a grandfather should be willing to stay home from work to allow the parents to go to their work), there was a significant difference only for Germany, and in the case of statement. Even more interesting are the results of answers given to statements Q1 (A woman should be prepared to cut down on his paid work if he becomes a grandmother) and Q2 (A man should be prepared to cut down on his paid work if he becomes a grandfather), for which significantly higher values of answers in relation to the respondents from Poland were obtained in all the other countries except for the Netherlands and Finland in Q1.

The last pattern noticed was the lack of significant differences between the answers to all the statements (except Q1) in the Netherlands, Spain, Finland and Belgium.

To check the validity of factor analysis, Kaiser-Meyer-Olkin test of sampling adequacy was carried out. The KMO close to 1 (KMO = 0.925) indicated sampling adequacy. Additionally, Bartlett's test of sphericity (df = 28, p = 0.000) confirmed that the variables are not orthogonal. Hence, the use of dimensionality reduction is justified and can lead to meaningful results. The factors were found using principal components analysis. The degree to which the total variance is explained by the specific components is presented in Table 6.

| Component |       | Initial eigenvalues |              |
|-----------|-------|---------------------|--------------|
| Number    | Total | % of variance       | % cumulative |
| 1         | 5.243 | 65.535              | 65.535       |
| 2         | 0.650 | 8.119               | 73.655       |
| 3         | 0.500 | 6.253               | 79.907       |
| 4         | 0.434 | 5.427               | 85.334       |
| 5         | 0.337 | 4.215               | 89.549       |
| 6         | 0.294 | 3.669               | 93.219       |
| 7         | 0.282 | 3.519               | 96.738       |
| 8         | 0.261 | 3.262               | 100.000      |

Table 6. Factor analysis results – explained total variance

The first factor explains 65.535% of the variance, whereas the second one 8.119%, giving a total of 73.655%. The subsequent increments of explanation are slight, which can also be seen in the scree plot (not provided here). The scree plot and the degree of explanation of the variance lead to the choice of two factors. The solution was subjected to varimax rotation with Kaiser normalisation, and the results obtained are presented in Table 7.

Table 7. Factor analysis results - factor loadings after varimax rotation with Kaiser normalization

| Variable  | Loadings |          |
|---|----------|----------|
| Variable —  | Factor 1 | Factor 2 |
| Q1. A woman should be prepared to cut down on her paid work if she becomes a grandmother                                    | 0.829    | 0.302    |
| Q2. A man should be prepared to cut down on his paid work if he becomes a grandfather                                       | 0.853    | 0.224    |
| Q3. If parents are in need of childcare, a grandmother should prioritize this above her paid work                           | 0.631    | 0.544    |
| Q4. If parents are in need of childcare, a grandfather should prioritize this above his paid work                           | 0.638    | 0.541    |
| Q5. If a grandchild is ill, a grandmother should be willing to stay home from work to allow the parents to go to their work | 0.261    | 0.854    |
| Q6. If a grandchild is ill, a grandfather should be willing to stay home from work to allow the parents to go to their work | 0.313    | 0.827    |
| Q7. A working grandmother should plan her days off during school holidays to look after her grandchildren                   | 0.590    | 0.573    |
| Q8. A working grandfather should plan his days off during school holidays to look after his grandchildren                   | 0.607    | 0.562    |

The pattern of the loadings after rotation indicates that variables can be linked to factors. The variables connected with temporary care resulting from an unexpected situation – an illness of a grandchild - are connected with the second factor, while the other variables are mainly determined by the first factor. Hence, the second factor may be labelled '*temporary* - *emergency* care' whereas the first one may be named 'long-term support'. It is worth noting that the latter demands significant adjustment processes on the part of grandparents, strongly interfering with their professional activity.

The identification of the first factor reflecting grandparents' perception of their involvement in taking care of their grandchildren in relation to specific activities on the labour market, i.e. placing more importance on family issues (looking after grandchildren) rather than on pursuing professional goals, led us to perform a comprehensive assessment of this attitude. Using the results of the factor analysis, a summative scale for the variables represented in the first factor was applied and, based on this, an assessment of the differentiation of attitudes according to gender, the country of residence, and the fact of belonging to different generations was performed. As in the case of the previous analyses, for gender, the Mann-Whitney U test, whereas for other variables - the Kruskal-Wallis tests, were used. The results of the tests and characteristics according to the category of independent variables are presented in Table 8.

| Independent<br>Variable | Dependent variable – summative scale<br>Average rank | p-value                               |  |
|-------------------------|--|---------------------------------------|--|
| Gender                  |  | 0.000                                 |  |
| Female                  | 1313.67  |                                       |  |
| Male                    | 1963.56  | (Mann-Whitney U)                      |  |
| Country                 |  | · · · · · · · · · · · · · · · · · · · |  |
| Belgium                 | 1549.29  |                                       |  |
| Finland                 | 1401.19  | 0.000                                 |  |
| Germany                 | 1746.35  | 0.000                                 |  |
| Greece                  | 1687.86  | ATT 1 1 TTT 11'                       |  |
| Netherlands             | 1488.36  | (Kruskal-Wallis)                      |  |
| Poland                  | 1278.47  |                                       |  |
| Spain                   | 1393.66  |                                       |  |
| Generation              |  |                                       |  |
| BB                      | 1461.43  | 0.000                                 |  |
| Х                       | 1446.59  |                                       |  |
| Y                       | 1482.75  | (Kruskal-Wallis)                      |  |
| Z                       | 1708.39  | ````                                  |  |

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The tests showed that for the categories of all independent variables which were considered there were significant differences in the mean values for the summative scale (p =<.001). Male respondents (mean rank = 1963.56) achieved a significantly higher result than female ones (mean rank = 1313.67). In terms of countries, the highest value was noted for Germany (mean rank =1746.35), whereas the lowest one was for Poland (mean rank =1278.47). Post hoc tests adjusted by the Bonferroni correction for multiple tests (significance level = 0.05) revealed that the result for Poland was significantly lower than for the other countries, except for Finland and Spain. The result for Germany, on the other hand, was significantly higher than for other countries, except for Belgium and Greece. Moreover, the value for Greece is significantly higher than the level set for Poland, Finland and Spain. An interesting result was obtained when analysing the different attitudes presented by the representatives of different generations. The highest mean rank value was noted for generation Z (mean rank =1708.39), whereas the lowest one was for generation X (mean rank =1446.59). Post hoc tests (significance level = 0.05) indicate that significant differences concern the results achieved by generation Z and other generations. The representatives of the youngest generation expressed opinions that are higher than those shared by older survey participants.

## **Discussion and conclusions**

The results of the analyses of the international survey conducted on representative samples appear to be very interesting. They show strong differentiation in opinions about the professional activity of grandparents taking into account all the analysed characteristics. Statistically significant differences were noticed in the opinions expressed on all the statements/ questions by women and men, the representatives of different generations, and also the respondents living in different countries where the research was conducted. Interestingly, the respondents expressed similar opinions on the professional activity of grandfathers and grandmothers. Referring directly to the answer to the first of the research questions posed, it is possible to identify several patterns for the analysed characteristics of the respondents. First and foremost, the representatives of the youngest generation (generation Z) were most often of the

opinion that grandmothers and grandfathers should sacrifice their professional activity to support younger family members, which was significantly different from what the representatives of other generations answered. This differentiation may be due to at least two reasons. Firstly, most of the representatives of generation Z may not have any children yet, which means that they do not know what sacrificing and looking after offspring look like. BB or people from generation X, who have already raised their children, have a different point of view – they do not usually feel like looking after young offspring again and they would prefer to spend time doing something else. Secondly, the representatives of generation Z tend to focus mainly on issues concerning their age group and do not care much about other generations (Scholz, C., 2019). The fact that in 4 out of 6 statements concerning changes in the lives of grandparents related to constantly taking care of their grandchildren the mean rank scores for generation Z were significantly higher than for all other generations also indicates that the representatives of this generation tend to push for a feel-good environment at home and at work on their own terms. In contrast, the smallest differences with relatively highest mean ranks for the two statements related to taking care of grandchildren by their grandparents during illness (Q5 and Q6) are indicative of perceiving this type of situation as 'a higher necessity' and the general acceptance of looking after the younger generation.

It is also possible to draw interesting conclusions from the analysis of the different answers given by men and women. It should be emphasised that for all the statements, statistically significantly higher values were observed in men's than women's answers. It is men who believe to a greater extent that grandparents should devote themselves to taking care of their grandchildren. The level of the analysis carried out so far does not make it possible to give a clear answer to the question of what caused such a result, whether it is an effect of patriarchal attitudes of men, or whether there are other reasons for that. Also, interesting results were found for country of residence. For all the statements analysed, significant differences were noticed between the answers of respondents from different countries, with differences in the answers to specific statements occurring in different countries. Interestingly, in Germany and Greece, compared to other countries, higher mean rank values were noted for all the statements. Quite surprisingly low were the mean rank values of the answers obtained by the respondents in Finland and Poland, countries that differ strongly in the perception of family roles and family models due to different cultural dimensions (Hofstede G., 2011). Low values obtained by the respondents from Poland may result from, among other things, the generally positive attitude of the society towards work, as indicated by the results of other studies (cf. Swadźba, U., 2022, among others).

With regard to the answer to the second research question, it should be noted that the results of the factor analysis, during which two factors were distinguished, are very promising: the first one may be named 'long-term support' and the second factor may be labelled 'temporary - emergency care'. Since that two factors to which it was possible to attribute substantive differentiation of the situation were identified (long-term vs. temporary), it was possible to use a summative scale for some statements analysed. The tests that were carried out showed, for all the independent variables taken into consideration, significant differences in the mean rank values for the summative scale created.

The planned further in-depth research should help to find the cause of such significant differentiation in the answers given by the respondents with different characteristics. Above all, tests taking into account two or, if possible, three characteristics simultaneously should allow us to further explore the topic, paying special attention to the analysis of differences in the answers given by the respondents from specific countries, of a specific age or gender. We suppose that further research can yield results that will confirm the findings of other studies on, among others, the different behaviour of generation Z in European countries (Scholz, C. 2019), or the different attitudes of women toward family roles. When conducting further research, it is also worth considering the impact of macroeconomic variables on attitudes towards work, changing norms in the perception of working parents, and the need to consider work-life balance (Cahill, K.E. et al., 2015; Twenge, J.M., 2010; Huber, P., Schubert, H.J., 2019; Hansen, J.-I. C., & Leuty, M. E., 2012).

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