FEMALE UNIVERSITY STUDENTS' VIEWS ON PARENTHOOD AS A SOCIOCULTURAL DETERMINANT OF BIRTH RATES: INTER-COUNTRY DIFFERENCES

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Abstract

The paper presents the results of an international research project in which we studied the reproductive plans and intentions of female university students from Russia, Austria and Kazakhstan, as well as their perceptions of future parenthood. We believe that these perceptions are one of the sociocultural determinants of birth rates.

Our research showed that there are clear country differences both in the students' reproductive intentions and their ideas about parenthood. Austrian respondents were characterised by the lowest reproductive intentions – they wanted the least number of children and they planned to become mothers later than their counterparts in other countries. Austrian students had the most "depressing" ideas about parenthood. Young women from Kazakhstan had the highest reproductive intentions and planned to become parents at the earliest age. Russian girls were between the two.

The results we obtained correspond to the demographic situation in each country. We believe these subjective ideas about the composition of their future families and ideas about future parenthood should be viewed as one of the sociocultural factors that determine birth rates. Thus there is potential to analyse the extent to which this sociocultural determinant can affect birth rate dynamics.

Key words: parenthood, birth rates, sociocultural determinant, University Students.

JEL Code: J11, J13

Introduction

There are vast inter-country differences in birth rates: total fertility rates (TFR) vary from 0.81 in Singapore to 6.76 in Niger *(Country comparison*, 2016). A number of factors are responsible for such variations: economic, socio-cultural, religious, political and others. Each can affect both birth rates and their dynamics in their own particular way.

It should be noted that the impacts of economic, religious and even political factors on fertility are often the subject of demographic research (for example, Amialchuk, Lisenkova, Salnykov, & Yemelyanau, 2014; Williams & Zimmer, 1988; Basso, 2015). However, socio-cultural determinants are examined far less often. One possible cause could be that researchers may consider them as less important. For instance, drawing on analysis of 33 Muslim countries, C. Yurtseven highlighted a relationship between reduced fertility and those countries' rapid economic development (Yurtseven, 2015). The impact of cultural determinants on fertility can only slightly slow down this process.

Researchers observe that the effects of sociocultural factors on fertility and parenthood are today becoming at once more differentiated and ever stronger. Thus, N. Balbo, F.C. Billari and M. Mills describe three levels of influence: micro, meso and macro (Balbo, Billari, & Mills, 2013). Among micro-level sociocultural factors they list fertility intentions, gender-based division of labour, fertility preferences, cultural context of family of origin and others. At the meso-level, this includes social interaction and social capital; at the macro-level, this concerns changing social norms on fertility.

We believe that the growing influence of socio-cultural factors on fertility dynamics is related to the increasing role of migration in shaping the nature of demographic processes in economically developed countries. Indeed, recipient countries are experiencing increasingly diverse reproductive behaviour models. This encourages a closer examination of this impact, so that it can be appropriately factored into the implementation of demographic policy.

The lack of researcher focus on sociocultural determinants can be explained by their diveristy, as well as by difficulties in formalising, measuring and verifying them. At the same time, the improtance of socio-cultural factors in demographic dynamics makes their study highly topical, particularly in countries with low and declining birth rates. Our research aims to identify differences in university students' views on parenthood and provide substantiation for a study of these views as sociocultural determinants of fertility.

There are two main reasons we chose students as the object of our research. Firstly, this group is quite accessible and open to cooperation, thus student surveys seldom present organisational difficulties. Secondly, university students – even those living in different countries – are a relatively homogenous group. They have the same social status and relative levels of independence, and comparable short-term goals (attaining a higher education). In the period of their university studies, students are not faced with goals that could impact their views on family and parenthood. Moreover, this social group (out of the entire population of young people) could reasonably be expected to hold the highest human capital; accordingly

they are the most valuable group of potential contributors to improving the reproductive situation in their home countries.

1 Data and Methods

This paper presents the results of an international research project in which we studied the reproductive plans and intentions of female university students from Russia, Austria and Kazakhstan, as well as their ideas about future parenthood. In each country we surveyed 200-250 female university students. We used mixed sampling in our research: simple random sampling to select universities and stratified sampling to select the students. The sampling error did not exceed 5%. Data was collected using questionnaires.

For the purposes of our study, out of the entire body of survey questions, we chose those that we believe reflect the female students' ideas about parenthood. Our research hypothesis was that these ideas are one of the sociocultural determinants of fertility. Thus we studied inter-country differences in the girls' answers to the following questions:

1. Questions about the preferred number of children. We used three indicators in our research:

- the expected number of children (the question was phrased as: "I believe that I will have … children");
- the desired number of children ("I want to have … children");
- the desired number of children in a perfect situation ("If all the right conditions were in place, I would want … children").

2. A question about the age at which the female students planned to become parents.

3. Questions about the advantages and disadvantages of having children. These were closed questions that allowed respondents to choose multiple answers. Moreover, they were able to provide one of their own.

To carry out our analysis, we used descriptive statistics (calculating means, modes, medians, standard deviation and relative standard deviation). We also used inferential statistics (assessing confidence intervals and employing hypothesis testing). For related samples, we applied within-subjects ANOVA, as well as the nonparametric Friedman Test. It should be said that we had a sufficient sample size to require only parametric tests. However to strengthen the reliability of the differences we identified, we also applied nonparametric testing.

To study response differences between countries, we used independent sample tests. In particular, we applied the one-way ANOVA for independent samples to evaluate the

differences between the means and Levene's test to assess the homogeneity of variances. To test the assumption of normality, we used the Shapiro-Wilks test. As nonparametric tests, we used the Kruskal Wallis Test and Median test (depending on the type of analysed variables).

2 Results

In the course of our research, we obtained the following results.

1. As expected, the preferred numbers of children (expected, desired and desired in a perfect situation) differ considerably. At the same time, the following relationship exists between the average values of the three variables: expected number of children < desired number of children < desired number of children in a perfect situation (table 1). Friedman Test results showed that the variables are significantly different from each other. The results of parametric within-subjects ANOVA were also statistically significant and confirmed the significance of differences in means across the three evaluated variables.

Tab. 1: Descriptive statistics for Preferred Numbers of Children

Preferred Number of Children	Statistics		Statistic
expected	Mean		2.34
	95% Confidence Interval for Mean	Lower Bound	2.28
		Upper Bound	2.41
	Mode		2
	Std. Deviation		0.60
	Relative Std. Deviation, %		26
desired	Mean		2.44
	95% Confidence Interval for Mean	Lower Bound	2.37
		Upper Bound	2.51
	Mode		2
	Std. Deviation		0.82
	Relative Std. Deviation, %		34
desired in a perfect situation	Mean		2.60
	95% Confidence Interval for Mean	Lower Bound	2.53
		Upper Bound	2.66
	Mode		2
	Std. Deviation		0.82
	Relative Std. Deviation, %		31

Source: authors' calculations based on the survey data

2. Preferred numbers of children – one of the manifestations of the young women's reproductive intentions – vary between countries. They are highest for respondents from Kazakhstan and lowest in Austria (Table 2).

Tab. 2: Average Preferred Numbers of Children across subject countries

Preferred Number of Children	Austria	Russia	Kazakhstan
expected	2.07	2.18	2.76
desired	2.00	2.32	2.86
desired in a perfect situation	2.27	2.55	2.90

Source: data of the survey

The nonparametric Kruskal Wallis Test confirmed the significance of differences between the three sets of preferred numbers of children. The Shapiro-Wilks Test, as well as the Test of Homogeneity of Variances did not confirm the suitability of one-way ANOVA in this case.

3. The results of our analysis showed that young women from different countries expect to become mothers at different ages. Thus, students from Kazakhstan planned to become mothers the youngest, while Austrian respondents reported the highest age expectations (Table 3).

Tab. 3: Age at which the female students plan to become mothers, years

Statistics	Austria	Russia	Kazakhstan
Mean	28.2	24.5	22.0
Median	28.0	24.5	23.5
Std. Deviation	2.5	3.0	7.2
Relative Std. Deviation, %	8.9	12.2	32.7

Source: authors' calculations based on the survey data

As the data in Table 3 shows, there is not a large range of values across the examined variables (Relative Standard Deviation did not exceed the 33% threshold), which means the calculated averages can be used to a certain extent. However the Shapiro-Wilks test, as well as the Test of Homogenenity of Variance, did not confirm the suitability of the one-way ANOVA for comparing average expected ages for becoming parents in the three countries. At the same time, the nonparametric Kruskal Wallis Test and Median Test confirmed the significance of the differences.

Summarising the results presented in paragraphs 2 and 3, we can say that the female students from Austrian universities have the lowest reproductive intentions – they reported the lowest numbers of children and planned to become parents later than their counterparts in other countries. Young women from Kazakhstan, who plan to become mothers before others and want to have more children,

demonstrate the highest reproductive intentions. The plans of Russian female university students as regards becoming parents are mid-way between the two.

4. The results of our research have shown that students from different countries have different views about parenthood. The data in tables 4 and 5 illustrates answers to questions about the advantages and disadvantages of being a parent.

Tab. 4: Advantages of having children

Advantages	% of Respondents			
	Austria	Russia	Kazakh-stan	Total
Children enable self-actualisation	24.1	18.8	21.3	20.5
Children raise my social status	3.7	6.3	9.0	6.6
Children give life a sense of fullness and meaning	74.1	93.8	73.0	84.2
Children contribute to my material well-being	3.7	0.0	9.0	3.3
Children improve relations in the family	42.6	48.1	57.3	49.8
Children are a way to fulfil my duty, to extend my family line	29.6	44.4	37.1	39.6
Having children means I will not face old age alone	20.4	39.4	37.1	35.3
Children guarantee financial security in old age	3.7	3.8	11.2	5.9
No answer	9.3	1.9	7.9	5.0

Source: data of the survey

Tab. 5: Disadvantages of having children

Disadvantages	% of Respondents			
	Austria	Russia	Kazakh-stan	Total
Children impede professional self-actualization	22.6	33.3	29.5	30.3
Children prevent me from enjoying life	9.4	4.5	13.6	8.1
Having children is a financial burden	54.7	32.7	26.1	34.7
Children have an adverse impact on the quality of your relationship with your spouse and the possibility of finding romantic happiness	7.5	1.3	12.5	5.7
Children prevent me from finding a good job	15.1	10.9	19.3	14.1
Children add uncertainty about the future	15.1	4.5	8.0	7.4
Children have a negative impact on social status	1.9	0.0	8.0	2.7
No answer	22.6	51.9	54.5	47.5

Source: data of the survey

Data in Table 4 and Table 5 make it possible to reveal the following features of female students' views on parenthood:

Firstly, the advantages of having children were more apparent to the female students than the disadvantages. Only 5% of students were unable to name any advantages, as opposed to almost half of the respondents who could not name any disadvantages.

Secondly, the female students had more varied ideas about the advantages of parenthood: 5 of the 7 advantages carry rather a lot of «load», with at least 20% of the respondents referring to them.

There are only two obvious dominants among the disadvantages: “children are an obstacle to professional self-actualisation” and “children are a financial burden”.

Thirdly, the core of the young women's ideas about the advantages of parenthood is the same across different countries. This comprises notions that having children creates a sense of purpose, fulfils a duty and improves family relationships.

Finally, there are inter-country differences in the students' views about the disadvantages of parenthood. The most “depressed” views were held by Austrian girls. Whereas over half of the respondents from Kazakhstan and Russia could not name a single disadvantage of parenthood, this number was much lower for Austrian students – around 23%.

3 Discussions

1. The relationship that was identified in the study as regards the average number of children corresponds to the established relationship (see, for example, Tyndik, 2012). The difference between these numbers is not very noticeable. This has two key implications: there is a general consistency of reproductive intentions and these are stable over time. We believe that this can help improve the realisation of these intentions (Freedman, Coombs, & Bumpass, 1965).

2. The identified specifics of reproductive intentions of the female university students correlate to the actual demographic situation in the subject countries: Austria has the lowest birth rates, while Kazakhstan has the highest. In 2015, the TFR in Austria was 1.46, in Russia it was 1.61 and 2.31 in Kazakhstan *(Country comparison*, 2016). We calculated a relative coefficient for the realisation of reproductive intentions by dividing the 2015 TFR by the average expected number of children recorded in our study. We found that this relative coefficient grows with increases in TFR and expected number of children. Thus we can say the rate of the realisation of reproductive intentions is higher for countries with higher birth rates and lower for countries with lower birth rates (Kazakhstan – 82%, Russia – 74%, Austria – 70%).

The TDIB (“Traits-Desires-Intentions-Behaviour”) framework (Miller, 2012) only partly explains differentiation at this level. Future studies ought to analyse the factors that influence this variability. Such studies have a high practical importance, because levels of reproductive intentions should be taken into consideration in the development of national demographic policies and in building normative forecasting.

3. The age at which young women plan to become mothers undoubtedly influences the actual age when they will give birth. We believe this affects both the quantitative and “qualitative” results of parenthood.

Thus, delaying the birth of the first child introduces a bias in the calendar of subsequent births. In the end, this impacts total fertility rate. Indeed there is an inverse correlation between the median birth age and TFR in the subject countries of our research (Table 6).

Tab. 6: Median age of expected parenthood age and total fertility rate in subject countries

Country	Median birth age, years	Total Fertility Rate
Kazakhstan	23.5	2.31
Russia	24.5	1.61
Austria	28.0	1.46

Source: data of the survey

Undoubtedly, the age at which people become parents also affects the substance of parenthood. For example, it is known that younger mothers have healthier children. Moreover, given a smaller inter-generational gap, parents and children enjoy better relationships. And young mothers have more opportunities to build their careers after having kids.

On the other hand, mothers who have children later in life are usually more responsible. At the same time, biases in the birth calendar raise the opportunity cost of having a child (as a result of needing to interrupt a successful career). With age, there can be an exacerbation of health problems, but this can be mitigated through better lifestyle choices. At the same time, having children after becoming more established in their careers allows parents to provide more financial security for their offspring.

4. The results of our study have shown that students from different countries have varied ideas about parenthood. The reasons for these differences could be explained in terms of Catherine Hakim's Preference Theory (Hakim, 2003), which states that women's lifestyle preferences are a key fertility factor. Our results could be quite relevant for the identified lifestyle preferences. Thus, young women from Austria are more likely to fit the career-oriented type; family-oriented type characteristics are more illustrative of young women from Kazakhstan, whereas Russian women are oriented towards combining work and family. However, confirming this supposition requires further research.

Conclusion

Our results show that views about the composition of one’s future family and the image of later parenthood could be viewed as one of the socio-cultural fertility determinants. The nature of ideas about numbers of children, the age of becoming parents, the advantages and disadvantages of parenthood corresponds to actual birth rates in each country. Accordingly, assessing the scope for this sociocultural determinant to affect fertility dynamics and studying its interaction with other sociocultural factors appears to be a promising area for further research. This research is made all the more topical in light of the growing intensity of migration processes today, which increase the influence of sociocultural factors on fertility and result in a greater diversity of reproductive behaviour models.

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References

Amialchuk, A., Lisenkova, K., Salnykov, M., & Yemelyanau, M. (2014). Economic determinants of fertility in Belarus. *Economics of Transition, 22*(3), 577-604. doi:10.1111/ecot.12043

Balbo, N., Billari, F. C., & Mills, M. (2013). Fertility in Advanced Societies: A Review of Research. *European Journal of Population / Revue Européenne De Démographie, 29*(1), 1-38. doi:10.1007/s10680-012-9277-y

Basso, A. (2015). Does Democracy Foster the Fertility Transition? *Kyklos, 68*(4), 459-474. doi:10.1111/kykl.12094

COUNTRY COMPARISON : TOTAL FERTILITY RATE. (2016). Retrieved April 21, 2016, from https://www.cia.gov/library/publications/the-world-factbook/rankorder/2127rank.html

Freedman, R., Coombs, L. C., & Bumpass, L. (1965). Stability and Change in Expectations About Family Size: A Longitudinal Study. *Demography*, *2*, 250-275. doi:10.2307/2060117

Hakim, C. (2003). A New Approach to Explaining Fertility Patterns: Preference Theory. *Population and Development Review, 29*(3), 349-374. doi:10.1111/j.1728-4457.2003.00349.x

Miller, W. B. (2012). Comparing the TPB and the T-D-I-B framework.*Vienna Yearbook of Population Research, 9*(1), 19-29. doi:10.1553/populationyearbook2011s19

Tyndik, A. O. (2012). Reproductive attitudes of the population of modern Russia. *SPERO*, (16), 95-112.

Williams, L. B., & Zimmer, B. G. (1988). The Changing Influence of Religion on Fertility in the United States. *Population Index, 54*(3), 515-516.

Yurtseven, C. (2015). The Socioeconomic Determinants of Fertility Rates in Muslim Countries: A Dynamic Panel Data Analysis. *Economics & Sociology, 8*(4), 165-178. doi:10.14254/2071-789x.2015/8-4/12

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