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REGIONAL FEATURES OF PRESCHOOL EDUCATION FOR CHILDREN UNDER 36 MONTHS IN RUSSIA

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Abstract

The article compares the outcomes of the implementation of Federal State Educational Standard of Preschool Education in organisations that deliver educational programs for preschool education for children under the age of 3 years, depending on what region of the Russian Federation these organisations are located in. The classification of Russian regions is based on the division of regions according to indicators of socio-economic development (namely donors and recipients), which exists in modern scientific economic literature. We compared various characteristics of preschool educational institutions in these types of regions with each other, and within the same type of regions, in order to assess the quality and availability of this type of education for families with children from 2 months to 3 years old. Only weak positive correlations were revealed between the number of subsidies in 72 recipient regions and indicators of the availability and quality of preschool education. They do not reach the level of statistical significance. On the one hand, this testifies to almost the equal availability and quality of child care services throughout the Russian Federation in terms of the studied indicators. On the other hand, a favourable socio-economic background in the region does not lead to more advanced quality of educational services in the region for infants and young children compared to its poorer neighbours. Obviously, this paradox requires further research. The conclusion is made about the need to adapt the organization of preschool education for regions with different levels of socio-economic development.

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Keywords: Preschool education, regions, monitoring, young children.



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1. Introduction

In the scientific works of N.M. Aksarina, J. Bowlby, L.A. Venger, L.S.Vygotsky, A.V. Zaporozhets, it is convincingly shown that the foundations of personality are laid in preschool age. And its results greatly affect the social and personal success of an adult. Therefore, the development of preschool education has received considerable attention from both academics and the public and politicians (Volosovets, Kirillov, & Buyanov, 2018b). The priority tasks of the development of the preschool education system around the world are its quality and availability. The quality of preschool education is associated with educators' training (Bernal, 2015), educational environments (Morabito, Van de gaer, Figueroac, & Vandenbroeck, 2018), and educational programs (Volosovets, Kirillov, & Buyanov, 2018a).

The problem of the availability of quality preschool education for families with low incomes is especially acute. Studies have shown that family income affects the development of emotional intelligence (Fletcher, & Wolfe, 2016), school success (Fergusson, Horwood, & Gibb, 2011). However, recent data does not support a link between low parental income and the risk of criminalization and drug addiction in adulthood (Fergusson, Horwood, & Gibb, 2011; Sariaslan, Larsson, D'Onofrio, Långström, & Lichtenstein, 2014). The key issue is social failure, the inability to accomplish their potential. Children from low-income families receive poorer quality preschool education, as they rarely benefit from well-equipped facilities with skilled pedagogical staff (Johnson, Martin, & Schochet, 2019), as well as a good secondary education (Lowry, 2016). These findings apply to both poor families in rich countries and poor families in developing countries (McCoy, Salhi, Yoshikaw, PiaBritto, & Fink, 2018; Miconia, Beeman, Robert, Beatson, & Ruiz-Casaresa, 2018).

In Russia, there is a wide variation in the quality of life in different regions (Perova & Neznakomtseva, 2016). This poses a challenge for scientists to comprehensively assess it in order to understand how the region economic well-being affects education (Fedorova, Musiyenko, Fedorov, & Rogov, 2018).

Various methods and approaches are used to assess the socio-economic development of regions. Economists assess the quality of life in regions by such indicators as income level, employment and housing conditions of the population (Rating of Russian regions..., 2019), formal mathematical methods for comparing regions (Gluschenko, 2018), gross regional product (Kislitsyn & Yurchenko, 2020), and others. An equally important parameter for a comparative assessment of regions is the division of regions according to the degree of their need for financial assistance from federal budget. They may be named as donor regions (those whose revenues to the regional budget exceed subsidies from the federal budget) and recipient regions (those receiving subsidies for regional budget equalization from the federal fund of a financial support of the regions). Among the latter, there are crisis, backward, depressive and border regions (Zubarevich, 2019).

Although the economic scientific literature discusses that there are no legislatively fixed criteria for classifying a region as one type or another, researchers refer to departmental instructions according to which regions are referred to donors or recipients. And we compared various characteristics of preschool educational institutions in these regions with each other, and within the same type of regions, in order to

assess the quality and availability of this type of education for families with children from 2 months to 3 years old.

2. Problem Statement

Based on the data of monitoring the quality of preschool education, the authors consider the features of preschool organisations for children under 36 months in different Russian regions. It is necessary to understand whether the level of socio-economic development of the region affects the quality and availability of preschool education for Russian families.

3. Research Questions

It is important for us to understand if there is a specific feature of preschool education in the regions of recipients and donors and describe it. In this study, a comparison was made on the same characteristics of preschool organisations as the size of groups, the qualifications of educators, and others.

4. Purpose of the Study

To compare and find common and differences in the learning environment, framework and pedagogical staff of preschool organisations for the youngest children in the regions of the Russian Federation that differ in socio-economic indicators.

5. Research Methods

Monitoring research on the quality of preschool education for infants and toddlers. Statistical methods (comparison of groups using the Mann-Whitney U-test).

6. Findings

The website of the Ministry of Finance of the Russian Federation (<https://www.minfin.ru>) publishes data on subsidies from the federal budget to certain regions (Raspredeleniye dotatsiy ..., 2018). According to this document, in 2019, 72 regions of the Russian Federation receive subsidies, they cannot subsist themselves with their own income. Only 13 regions are donors, they give money to the federal budget, and do not receive donations from it for equalisation. This difference in the number of regions surveyed does not allow the use of reliable methods for analysing statistical differences between them. Therefore, in the matter of comparison, we used only the descriptive statistics of the indicators (arithmetic means, M ; the spread of attribute values from minimum to maximum values, min and max). In addition, in this work, we proceed from the assumption that between the number of subsidies to equalise the budgetary provision for the region, there should be a connection with the amount of spending on preschool education, which will be reflected in improving the quality and accessibility of education for families in this region. We tested this hypothesis using Spearman's rank correlation coefficient as more satisfactory consistent with the nature of our data (Sidorenko, 2007).

We assessed the quality and accessibility of preschool education for children under 36 months using data of the monitoring of the implementation of the Federal State Educational Standard for preschool education in organizations performing educational programs for preschool education (2019) conducted by the Ministry of Education of the Russian Federation. The analysis of the “accessibility” category included a comparison of such indicators as the number of preschool organisations in the regions, the average number of all children and children with limited abilities under 36 months per organisation. The “quality” analysis focused on comparing buildings in need of general maintenance and the teaching staff of preschool organisations in the region, taking into account the average number of all children and children with health problems per a teacher.

In a region with a distinctive quality of life, there is a different average number of preschool educational organisations that carry out educational activities in the basic educational programs of preschool education, look after and care for children up to 36 months. In receiver regions, on average, 533 such organisations (min = 44, max = 1865), in donor regions the average number of preschool organisations is 865.6 (min = 33, max = 2155).

To consider the average number of students in different regions. The data show that in regions with different socio-economic indicators in one educational institution, on average, there is a different number of children. In the host regions in one preschool educational institution, on average, 6899.5 students under 3 years of age (min = 310, max = 93438), in donor regions - on average 18857.9 pupils of this age (min = 679, max = 45900). For children younger than 36 months old with health problems, these indicators are 47.0 (min = 0, max = 5242) and 1611.9 (min = 0, max = 17315), respectively. On average, one kindergarten in the recipients regions has 21.8 children under 3 years old (min = 0.54, max = 60.63) and 0.19 children of this age with health problems (min = 0, max = 15.05). For donor regions, these figures are, respectively, 24.9 children under 3 years old (min = 10.8, max = 49.11) and 1.71 children of this age with health problems and disabled (min = 0, max = 17.21). Thus, although in the regions referred to as donors and recipients, there is a rather widespread in the mean number of children up to 3 years per educational organisation, a comparison of this indicator for each of the groups show more occupancy of child care services in the donor regions, especially of children of this age with limited abilities.

Is there a relationship between the number of funds allocated for the regions from the federal budget and the number of preschool organisations in the region and their occupancy? Spearman's rank correlation coefficients for our samples are equal to $r_{\text{СПИ}} = 0.13$ (the amount of subsidies in regions and the number of educational institutions, more precisely, the ranks of them) and $r_{\text{СПИ}} = -0.20$ and $r_{\text{СПИ}} = -0.22$ (the amount of subsidies in regions and the average number of all children under the age of 36 months and children of this age with limited abilities per organisation). The critical values of the Student's test for our samples are, respectively, $t_{\text{cr}} = 0.16$ (for $P \leq 0.05$) and $t_{\text{cr}} = 0.21$ (for $P \leq 0.01$). Thus, we can conclude that there is a weak positive and weak negative relationship (according to the Chaddock's scale) between these variables. They are also not statistically significant, except for a weak negative relationship between subsidies and the average number of children under 3 years of age per educational institution. Therefore, at the level of the trend, we can say that the higher the subsidies to the region, allocated to equalise the budget, the smaller the number of children aged 2 months and to 3 years on average who

enrol in the regional preschool educational institution. With regard to other indicators, it is likely that some other factors determine the availability of preschool education for families in the region.

Comparison of the quality of preschool organisations that carry out educational activities in education, supervision and care of children up to 36 months, according to the selected criteria, showed the following. The average number of preschool buildings in need of current repair is 250 in recipient regions (min = 0, max = 1268), in donor regions is 313.2 (min = 0, max = 897).

Characterizing the staff of kindergartens, it is conceivable to indicate the average number of teaching staff (including the positions of the diverse teaching staff) implementing educational programs for preschool education in both types of regions. That is 7739.5 pedagogues in the recipient regions and 14144.4 people in the donor ones. For 1 pedagogue in a preschool organisation in the recipient regions has on average 1 normally developing child and 0.01 children with health problems (min = 0.03, max = 3.64 and min = 0.0, max = 1.2, respectively). In donor regions, there are on average 1.4 normally developing children per 1 teacher and 0.1 children with limited health abilities (min = 1.0, max = 2.82 and min = 0.0, max = 1.16, respectively).

Spearman's rank correlation coefficients for our samples are equal to $\text{temp} = 0.19$ (the amount of subsidies and the number of preschool buildings in need of maintenance) and $\text{temp} = -0.09$ and $\text{temp} = 0.05$ (the amount of subsidies and the average number of all children and children with health problems under the age of 36 months per 1 educator in preschool institutions). Consequently, we can conclude that there is a weak positive relationship (on the Chaddock's scale) between these variables. They are also not statistically significant.

7. Conclusion

Based on the data obtained, we can say that a rather paradoxical situation is developing. Only weak positive correlations were found between the amount of subsidies in 72 regions of recipient regions and indicators of the availability and quality of preschool education for families with children under 36 months. They do not reach the level of statistical significance. On the one hand, this indicates a fairly equal availability and quality of services in this area throughout the Russian Federation according to the studied indicators. These include the number of preschool organisations in the regions, the average number of all children and children with health problems up to 36 months per organisation, the number of buildings in need of current repairs, and the teaching staff of preschool organisations in the region, taking into account children and children with health problems per an educator. On the other hand, descriptive statistics show differences in the number of students in early education organisations and in the number of children per teacher in regions differ in terms of their socio-economic development, with some predominance of mentioned above indicators in donor regions. Based on these data, we can assume that a favourable social and economic background in the region does not lead to the more excellent quality of educational services in the region for infants and young children. Obviously, this paradox requires further research.

The following practical conclusions can be drawn: it is important to emphasize that failure to identify differences in the organisation of preschool education and childcare in different regions is an

issue for the authorities and officials. Only further research will help the leaders of the preschool education system predict the necessary changes.

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