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THE QUALITY OF LIFE OF LABOR MIGRANTS' CHILDREN

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Ключові слова: *якість життя, пов'язана зі здоров'ям, клінічна практика, педіатрія, діти, медичні послуги*

Abstract. The quality of life of labor migrants' children. Gorbunova G.D. *In order to define the quality of life of labor migrants' children, there were researched different aspects of their lives, such as physical functioning (PF), emotional functioning (EF); social functioning (SF) and school/role functioning (SRF). The given research involved 150 children from Republic of Moldova of different age groups (5-7, 8-12, 13-18), of whom 75 children of the labor migrants and their parents/guardians who remain in the country and 75 children of labor migrants and their parents without labor migration experience. As a research tool there was used the Pediatric Quality of Life Inventory (PedsQL™4.0. In the course of the research there was distinguished Quality of Life (QOL) of children on a high level – from 100 to 91 points, middle level – from 90 to 81, low level – from 80 to 71 and the lowest level, less than 70 points. According to the results of the investigation it was established that the migrants' children of various age groups in all the examined aspects had a very low level of QOL (less than 70 points). In all age groups of migrants' children the QOL in terms of physical functioning is reliably lower (p<0.001) in comparison with the children from the control group. The highest level of QOL was observed in the group of children aged 5-7 and the lowest - in those of aged 13-18*

years. There was also revealed a very low level of QOL of the migrants' children in emotional aspect (from 42.0 ± 25.32 to 43.7 ± 25.94 points) which considerably differs ($p < 0.001$) from a middle level of QOL of the children from the examined group (from 85.0 ± 19.83 to 89.0 ± 20.82 points). The lowest indicators of QOL in the emotional aspect of the migrants' children aged 13-18 years (42.0 ± 25.32) demonstrate a very specific emotionally stressed state of these children. Migrants' children demonstrate a very low level of QOL in terms of social functioning and which reliably differs from a middle level of QOL of children from the examined group, demonstrating a low ability to social adaptation of children after parents' migration. The lowest indicators of the total score of QOL were revealed at the age of 13-18, both in groups of migrants' children (46.8 ± 24.19 points) and in the examined group of children (82.7 ± 19.57 points). At the same time the highest indicators of the total score of QOL were revealed at the age of 5-7, both in migrants' children (55.9 ± 30.85 points) and children of the examined group (85.9 ± 23.70 scores). The presented results is a very convincing fact that labor migrants' children in comparison to their peers from the families without labor migration experience had considerably low indices by all scales and integral characteristics of quality of life.

Реферат. Якість життя дітей трудових мігрантів. Горбунова Г.Д. Метою цієї роботи було визначення якості життя (ЯЖ) дітей трудових мігрантів у різних аспектах їхнього життя: фізичне функціонування (ФФ); емоційне функціонування (ЕФ); соціальне функціонування (СФ); шкільне / рольове функціонування (ШФ). У дослідженні брали участь 150 дітей Республіки Молдова, різних вікових груп (5-7, 8-12, 13-18 років), з них 75 дітей трудових мігрантів і їх батьки / опікуни, що залишилися в країні, та 75 дітей і їх батьки без досвіду трудової міграції. Інструментом дослідження був використаний опитувальник *Pediatric Quality of Life Inventory (PedsQL™ 4.0)*. У ході дослідження виділяли ЯЖ дітей на високому рівні – при 91-100 балах, на середньому – при 81-90 балах, низькому – при 71-80 балах, дуже низькому менше 70 балів. За результатами дослідження встановлено, що діти мігрантів усіх вікових груп, в усіх досліджуваних аспектах мали дуже низький рівень ЯЖ (менше 70 балів). У всіх вікових групах дітей мігрантів ЯЖ в аспекті фізичного функціонування має достовірно ($p < 0,001$) нижчий рівень показників порівняно з дітьми з контрольної групи. Найвищий рівень ЯЖ був у дітей 5-7 років, а найнижчий – у дітей у віці 13-18 років. Був виявлений дуже низький рівень ЯЖ дітей мігрантів (від $42,0 \pm 25,32$ до $43,7 \pm 25,94$), який достовірно відрізнявся ($p < 0,001$) від середнього рівня ЯЖ дітей з контрольної групи (від $85,0 \pm 19,83$ до $89,0 \pm 20,82$). Найнижчі показники ЯЖ в емоційному аспекті в дітей мігрантів 13-18 років ($42,0 \pm 25,32$) демонструють особливий емоційний, стресовий стан цих дітей. Діти мігрантів мають показники дуже низького рівня ЯЖ в аспекті соціального функціонування, які достовірно відрізнялися від середнього рівня ЯЖ дітей з контрольної групи, що демонструє низьку здатність до соціальної адаптації дітей після міграції батьків. Найнижчі показники ЯЖ в аспекті шкільного / рольового функціонування продемонстрували діти мігрантів у віці 13-18 років ($44,4 \pm 19,28$ бала) порівняно з показниками дітей у віці 5-7 років ($54,0 \pm 26,29$ бала). Ці результати достовірно відрізнялися ($p < 0,001$) від показників дітей з контрольної групи ($78,6 \pm 20,01$ бала в віці 13-18 років і відповідно $83,2 \pm 25,83$ бала у віці 5-7 років). Дуже низький рівень загального бала ЯЖ дітей мігрантів достовірно відрізнявся від середнього рівня загального бала дітей контрольної групи як за опитуваннями дітей, так і їхніх батьків. Найнижчі показники загального бала ЯЖ були виявлені у віці 13-18 років, як у групі дітей мігрантів ($46,8 \pm 24,19$), так і в контрольній групі дітей ($82,7 \pm 19,57$). У той же час найвищі показники загального бала ЯЖ були виявлені у віці 5-7 років, як у групі дітей мігрантів ($55,9 \pm 30,85$), так і в групі дітей контрольної групи ($85,9 \pm 23,70$). Представлені результати є переконливим фактом того, що діти трудових мігрантів порівняно з їх однолітками із сімей без досвіду трудової міграції мали достовірно низькі показники за всіма шкалами й інтегральної характеристики якості життя.

The health of the population, especially children of the Republic of Moldova in the modern conditions of socio-economic transformations and state-building in the post-Soviet space is not only a medical problem but to a large extent a factor that determines the future sustainable development of the country.

Moldova has experienced an unprecedented surge in emigration to the CIS and European Union countries over the past 20 years. New socio-economic

forms of family life, caused by the processes of labor migration of the population led to a change in family ideology and the usual system of values, caused a state of insecurity, social and psychological maladjustment.

According to the mass media of Moldova, from 800 thousand to 1.5 million inhabitants of the republic are in labor migration, which is more than 25% of the economically active inhabitants of the

country. According to studies, the reasons for migration are the lack of job and low wages [11].

Labor migration gives rise to a number of complex problems, one of which is children left at home, with one or both of their parents left for work abroad [8, 10]. According to the Ministry of Health, Labor and Social Protection of the Republic of Moldova, in 2018, in 37866 children parents are in labor migration. According to existing data, in more than one third of the children of migrants both parents left the country. If in families where one parent migrated children have social and psychological support from the parent who remained in the family, then in families where both parents left for work, the situation is much worse. The psychological state of migrants' children depends on the emotional and social changes in their lives, so the majority of the children interviewed claim that they lack parental love and communication with their parents. In the absence of both parents or in the absence of a mother, children are often depressed. Children of migrants are often at risk of violence, trafficking, and involvement in criminal activities. These complex changes are due to many factors: the duration of the absence of parents, the degree of preparedness of the child for an independent life, the relationship between the child and the guardian etc., as well as the attitude of society towards the children of migrants [1].

Lack of sexual education of the children in the context of labor migration of parents, especially mothers, often leads to undesirable results, namely: early sexual intercourse, unwanted pregnancies, sexually transmitted diseases [16].

The growth of morbidity, socially significant pathology and diseases associated with behavioral risk factors characterize the modern features of the health status of children of labor migrants, and the study of indicators characterizing the health of the child population affected by the migration of parents is one of the main tasks of the health care system. The development of measures to improve the health and quality of life of children of labor migrants is one of the principle direction in social pediatrics [3, 9, 14].

One of the key criteria reflecting the state of health and general well-being of the population at the present stage of development of medicine is the quality of life (QOL) [19]. The fundamental criteria of QOL of a human being at the end of the 20th century which underlie modern ideas about this indicator were developed by the WHO: physical, psychological, level of independence, social life, environment and inwardness. Thus, QOL includes information about the main components of human

well-being: physical, psychological, social and inward [10, 15].

In pediatrics, the concept of "quality of life" differs from that of adults, which is due to the dependence of children on their parents, peers, classmates, development, demographic factors, and differences in health care systems. An integral characteristic of the physical, psychological and social functioning of a child, based on his subjective perception and/or the subjective perception of parents or other persons from the child's inner circle, determines child's QOL [2, 19]. QOL studies in pediatrics open up new possibilities for a comprehensive analysis of the physical, psychological and social functioning of children [7, 17].

It should be noted the relevance of QOL studies of special social groups - children from families of labor migrants or low-income families [12]. There is a close relationship between poverty in childhood and poor physical and mental health, the possibility of getting pregnant in adolescence, alcoholism, toxicomania and drug abuse, antisocial behavior [5, 13, 16]. The impairment of physical development and cognitive functions in these children may be due to poor nutrition. Cruel and neglectful treatment of children in families of labor migrants leads to mental health problems or physical consequences [12]. Often, children of migrants temporarily left without parents do not receive timely and adequate medical care [14]. Determination of the characteristics of QOL of this contingent may underlie the improvement of their medical and social protection [4, 6, 20].

Thus, the relevance of this work determined the conduct of scientific medical and social studies of conditions and lifestyle of migrant families, health status and quality of life of their children, the need for a radical revision of the concept of their medical and social protection.

The goal is to determine the characteristics of the QOL of children from families of labor migrants using the tool for assessing the latter in pediatrics with Pediatric Quality of Life Inventory questionnaire (PedsQL™ 4.0).

MATERIALS AND METHODS OF RESEARCH

The research was carried out in the Republic of Moldova. The analysis of the quality of life of children from families of labor migrants was carried out. For the research, modern adequate methods were used, namely: analytical, questionnaire, statistical. There was used a questionnaire developed by the Department of Pediatrics of the Chisinau State Medical University named after N. Testemitanu which was assessed by the leading specialists of

institutions of Moldova in the field of pediatrics, social medicine, psychology and sociology.

Study design: cross-sectional study. The survey was carried out anonymously with the prior consent of the respondents. The inclusion criterion: children of labor migrants and their parents/ guardians who remained in the country. The exclusion criterion: children of migrants without guardians, with both parents in labor migration. The survey was carried out in a short time frame. The survey period is from March to May 2019. The survey was carried out by pre-prepared interviewers (the preparation period was 1 week).

The study group included 75 children of different age groups: 5-7 years old (26.7%); 8-12 years old (40%); 13-18 years old (33.3%) from families of labor migrants and their parents who remained in the country or guardians (n. 75). The control group included 75 children of the corresponding age: 5-7 years old (26.7%); 8-12 years old (40%); 13-18 years old (33.3%) and their parents without experience of labor migration (n. 75). The research tool was the Pediatric Quality of Life Inventory questionnaire (PedsQL™ 4.0). The questionnaire consists of 23 questions, which are grouped into the following scales: physical functioning (PF) – 8 questions; emotional functioning (EF) – 5 questions; social functioning (SF) – 5 questions; school/role functioning (SRF) – 5 questions. The questionnaire is divided into blocks by ages 5-7, 8-12 and 13-18 years old with forms to be filled in by children and their parents. The total number of points for all modules is calculated by a 100-points scale after the scaling procedure: the higher the final value, the better the child's QOL. In the course of the study the QOL of children was distinguished as high – 91-100 points, medium – 81-90 points, low – 71-80 points, very low – from 70 points and lower.

The data were statistically processed using the IBM SPSS Statistics Campus Editions software product (contract number: AU-EP-129/2014/245 from 29.12.2014; invoice number: 060315/1 from 06.03.2015). Checking the normality of the distribution of the sample was carried out using the Shapiro-Wilk test. To determine the reliability of the differences in indicators, the Student's t test was calculated. The critical level of significance is 5% ($p < 0.05$). Descriptive statistics is presented in the format $M \pm \sigma$ (normal distribution). Inter- and intra-group comparisons were carried out using multivariate nonparametric ANOVA analysis. Internal consistency of characteristics was determined by calculating the Cronbach's alpha coefficient [18].

RESULTS AND DISCUSSION

The study showed that the average QOL indicators of children in all aspects, according to children's opinion are significantly lower in the main group than in the control group (Table).

When assessing the quality of life in the aspect of physical functioning, it can be noted that in all age groups of migrants' children there is a significantly ($p < 0.001$) lower level of indicators compared to children from the control group. The same trend is observed when comparing the QOL of children according to surveys of parents. When studying the level of QOL in the aspect of physical functioning, it was noted that children of migrants of all age groups had a very low level of QOL (less than 70 points) and the latter was revealed both in the survey of children and their parents. The highest standard of living was among children aged 5-7 years old, and the lowest – among children aged 13-18 years old.

Assessing the level of QOL of children of parents' without migration experience, an average level was revealed (from 90 to 81 points), and according to the opinion of both children and their parents, at the same time, it was noted that children assessed their QOL (from 82.6 ± 19.21 to 86.6 ± 23.61 points) higher than their parents (from 80.0 ± 17.91 to 81.1 ± 22.56 points).

Studying the quality of life of migrants' children in the aspect of emotional functioning, the lowest indicators were revealed in all age groups as compared with other aspects (FF, SF, SRF, TS). This trend was observed both in assessing survey of children and their parents. A very low level of QOL was found in all age groups of migrants' children, both when interviewing children and when interviewing their parents. The revealed very low level of QOL of migrants' children (from 42.0 ± 25.32 to 43.7 ± 25.94 points) significantly differed ($p < 0.001$) from the average level of children from the control group (from 85.0 ± 19.83 to 89.0 ± 20.82 points). The level of QOL of children was also significantly different according to surveys of parents. The lowest indicators of QOL in the emotional aspect were demonstrated by migrants' children aged 13-18 years (42.0 ± 25.32 points), most likely this can be explained by the fact that children in puberty period experience the absence of parents more strongly, being in a special emotional condition, stress.

Comparing the QOL of children in the aspect of social functioning, it was revealed that children of migrants have very low indicators, which significantly differed from the average QOL of children from the control group (Fig. 1). Parents/guardians of migrants' children rated children's QOL lower than the children themselves (46.3 ± 25.06 points compared to 53.5 ± 28.57 points at the age of 8-12 years).

Parameters of the quality of life of children (points, $M \pm \sigma$)

Questionnaire modules	Age of children (years)	Family with labor migrants		Family without experience of labor migration	
		children ($M \pm \sigma$)	parents ($M \pm \sigma$)	children ($M \pm \sigma$)	parents ($M \pm \sigma$)
PF (physical functioning)	5-7	59.7±28.95*	49.8±17.91	86.6±23.61	80.0±17.91**
	8-12	54.6±25.97*	36.8±26.15	83.3±20.30	80.2±20.16**
	13-18	48.4±26.36*	44.1±25.92	82.6±19.21	81.1±22.56**
EF (emotional functioning)	5-7	43.5±35.29*	40.3±17.50	89.0±20.82	76.8±17.50**
	8-12	43.7±5.94*	42.5±22.94	85.8±19.30	82.4±21.65**
	13-18	42.0±25.32*	37.7±26.77	85.0±19.83	81.0±20.99**
SF (social functioning)	5-7	64.3±29.60*	53.0±18.77	84.5±24.30	84.8±18.77**
	8-12	53.5±28.57*	43.6±25.06	85.7±19.93	81.2±21.47**
	13-18	51.4±22.96*	52.1±23.85	84.5±19.02	82.6±20.39**
SRF (school/role functioning)	5-7	54.0±26.29*	42.3±23.30	83.2±25.83	75.5±23.30**
	8-12	52.2±21.66*	38.3±20.62	81.0±20.89	75.3±23.33**
	13-18	44.4±19.28*	43.8±20.74	78.6±20.01	71.4±20.50**
Total score	5-7	55.9±30.85*	46.8±19.53	85.9±23.70	79.3±19.53**
	8-12	51.5±25.98*	40.4±24.34	83.9±20.18	79.8±21.59**
	13-18	48.8±24.19*	44.3±25.02	82.7±19.57	79.2±21.67**

Notes: * – $p < 0.001$ - reliability of differences in indicators between children of migrants and children without parents' experience of labor migration; ** – $p < 0.001$ – reliability of differences in indicators between parents of children of migrants and without experience of labor migration; $M \pm \sigma$ – mean value \pm standard deviation.

The QOL of children in the social aspect differed not only in the opinion of children, but also in the opinion of their parents (Fig. 2) which was reliably proved ($p < 0.001$).

When assessing QOL in terms of school/role functioning, it was noted that both parents/guardians of migrants' children and parents of children from the control group assess QOL lower than the children themselves. The lowest QOL indicators were demonstrated by children of migrants aged 13-18 years (44.4±19.28 points) compared with indicators of children aged 5-7 years (54.0±26.29 points). When comparing, it was found that the QOL of children of migrants and children from the control group are significantly different (both in the opinion of children and in the opinion of parents), and the level of QOL in children of migrants was much lower than that of children in the control group.

When analyzing the total score of QOL of children, it was revealed that the indicators of the survey of parents (both parents-migrants and parents of children in the control group) were lower than the indicators of the survey of children themselves. The highest indicators of the total score of QOL were revealed at the age of 5-7 years, both in the group of migrants' children (55.9±30.85 points) and in the group of children in the control group (85.9±23.70 points). The very low level of the total score of QOL of children of migrants significantly differed from the average level of the total score of children in the control group, both according to surveys of children and their parents. At the same time, the lowest indicators of the total score of QOL were found at the age of 13-18, both in the group of migrants' children (46.8±24.19 points) and in the control group (82.7±19.57 points).



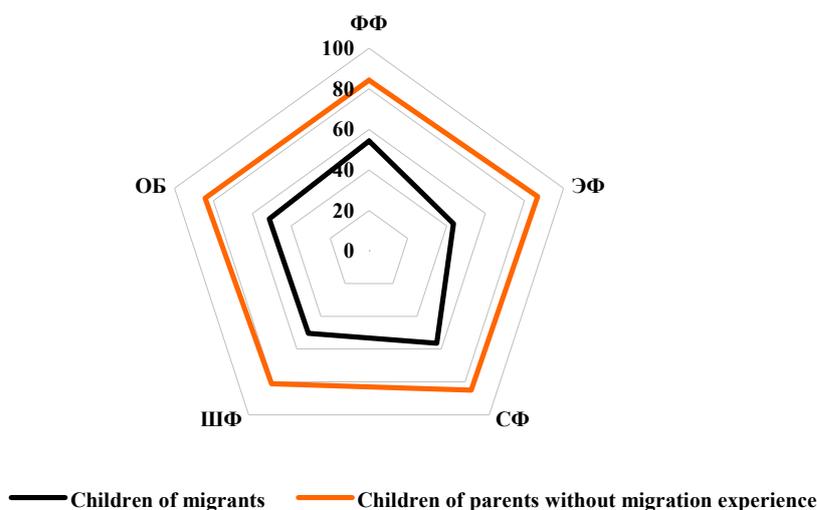


Fig. 1. Profiles of quality of life of children (according to answers of children)

The presented results are a convincing fact that children of labor migrants, compared with their peers from families without parents' labor migration experience had significantly low indicators by all scales and integral characteristics of QOL. When

determining the levels of quality of life and the corresponding distribution of children it was established that reliably all studied children of migrants were in the group with very low indicators of quality of life.

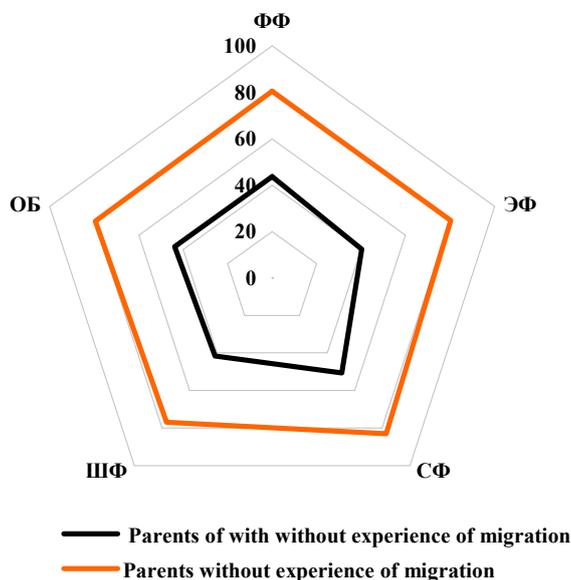


Fig. 2. Profiles of quality of life of children (according to answers of parents)

CONCLUSIONS

1. The average indicators of QOL of children of migrants in all aspects, both in the opinion of children and their parents, are significantly lower than that of children from families without no experience of labor migration. Children of migrants

of all age groups in all studied aspects had a very low level of QOL (less than 70 points).

2. In all age groups of children of migrants, QOL in the aspect of physical functioning has a significantly lower level of indicators ($p < 0.001$) in

comparison with children from the control group. The highest level of QOL was in children aged 5-7 years and the lowest - in children aged 13-18 years.

3. In all age groups of migrants' children the lowest indicators of QOL in the aspect of emotional functioning were revealed in comparison with other aspects (FF, SF, SRF, TS). The revealed very low level of QOL of children of migrants (from 42.0 ± 25.32 to 43.7 ± 25.94 points) significantly differed ($p < 0.001$) from the average level of QOL of children from the control group (from 85.0 ± 19.83 to 89.0 ± 20.82 points). The lowest QOL indicators in the emotional aspect in migrants' children aged 13-18 years (42.0 ± 25.32 points) demonstrate a special emotional, stressful state of these children.

4. Children of migrants have very low level of QOL in the aspect of social functioning, which significantly differed from the average level of QOL of children from the control group. Parents/guardians of migrants' children rated the children's QOL lower than the children themselves (46.3 ± 25.06 points compared to 53.5 ± 28.57 points at the age of 8-12 years). The presented data demonstrate a low ability for social adaptation of children after the migration of their parents.

5. Parents/guardians of migrants' children and parents of children from the control group assess QOL in terms of school/role functioning lower than the children themselves. The lowest QOL indicators in the aspect of school functioning were demonstrated by children of migrants aged 13-18 years (44.4 ± 19.28 points) compared with indicators of children aged 5-7 years (54.0 ± 26.29 points).

6. The very low level of the total QOL score of children of migrants significantly differed from the average level of the total score of children in the control group, both according to surveys of children and their parents. The highest indicators of the total QOL score were found at the age of 5-7 years, both in the group of migrants' children (55.9 ± 30.85 points) and in the group of children in the control group (85.9 ± 23.70 points). At the same time, the lowest total QOL scores were found at the age of 13-18, both in the group of migrants' children (46.8 ± 24.19 points) and in the control group of children (82.7 ± 19.57 points).

Conflict of interest. The author declares no conflicts of interest.

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