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SOCIOLOGICAL RESEARCH AMONG DIFFERENT POPULATION CATEGORIES (INCLUDING SCHOOL-AGED CHILDREN) AND ITS RESULTS

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Summary. The current Ukrainian population health status is characterized as critical. The article has analyzed the results of the sociological sampling among the children aged 0-14 and 15-17 years inclusively, as well as prevalence of diseases of the digestive system; the medical and social significance of influence of this pathology on the most substantial periods of growth and development of a child and duodenal ulcer incidence rate among children. **Objective:** to study the prevalence of the digestive system diseases, including duodenal ulcer among school-aged children in Ukraine. **Materials and methods:** sociological and process analysis methods were used. **Results and discussion.** The article presents the sociological sampling project scheme. The research comprised 597 children who live in cities and in rural area. We have presented the results of the sociological sampling of the first group of the children with the digestive system diseases, namely: 198 children, including 102 children living in cities and 96 – in rural area. According to the research program, we studied and analyzed the results of sociological sampling among the children in the Kyiv City and Kyiv Region and gave the recommendations on health improvement to the children with duodenal ulcer and their parents. **Conclusion.** The results of surveying the school-aged children with the digestive system diseases and other population categories, the study of their opinion will give an opportunity to prepare the further actions plan to prevent these diseases.
Key words: sociological sampling; digestive system diseases; school-aged children; primary health care.

Резюме. В даний час стан здоров'я населення України можна охарактеризувати як критичне. У статті проаналізовані результати соціологічного дослідження серед дітей віком 0-14 та 15-17 років, включно, а також поширеність захворювань органів травлення; медична і соціальна значимість впливу даної патології на найбільш значимі періоди росту і розвитку дитини та захворюваність на виразку дванадцятипалої кишки серед дітей. **Мета дослідження:** вивчити поширеність захворювань органів травлення, у тому числі виразки дванадцятипалої кишки, серед дітей шкільного віку в Україні. **Матеріали і методи:** були використані соціологічні та технологічні методи аналізу. **Результати і обговорення.** У статті представлена соціологічна схема проекту вибірки. Дослідження були проведені серед 597 дітей, які живуть в містах і в сільській місцевості. Представлені результати соціологічної вибірки першої групи дітей, у яких є захворювання травної системи, а саме: 198 дітей, в тому числі 102 дітей, які проживають в містах, і 96 – у сільській місцевості. Відповідно до програми досліджень, ми вивчили і проаналізували результати соціологічного вибірки серед дітей міста Києва та Київської області та дали рекомендації щодо поліпшення здоров'я дітей з виразковою хворобою дванадцятипалої кишки і їх батьків. **Висновок.** Результати дослідження дітей шкільного віку та інших категорій населення, вивчення їх думки, дасть можливість підготувати подальший план дій для запобігання цьому захворюванню.
Ключові слова: соціологічна вибірка; захворювання органів травлення; діти шкільного віку; первинна медична допомога.

Резюме. Нынешнее состояние здоровья населения Украины можно охарактеризовать как критическое. В статье проанализированы результаты социологического исследования среди детей в возрасте 0-14 лет и 15-17 лет, включительно, а также распространенность заболеваний органов пищеварения; медицинская и социальная значимость влияния этой патологии на наиболее существенные периоды роста и развития ребёнка и заболеваемость язвой двенадцатипипёрстной кишки среди детей. **Цель:** изучение распространенности заболеваний органов пищеварения, включая язву двенадцатиперстной кишки у детей школьного возраста в Украине. **Материалы и методы:** использовались социологические и технологические методы анализа. **Результаты и обсуждение.** В статье представлена схема проекта социологической выборки. Исследование было проведено среди 597 детей, которые живут в городах и в сельской местности. Мы представили результаты социологического опроса первой группы детей, страдающих заболеваниями пищеварительной системы, а именно: 198 детей, в том числе 102 детей проживающих в городах и 96 – в сельской местности. Согласно исследовательской программе мы изучили и проанализировали результаты социологического опроса детей в городе Киеве и Киевской области и дали рекомендации по

оздоровлению детей с язвой двенадцатиперстной кишки и их родителям. **Вывод.** Результаты обследования детей школьного возраста и других категорий населения, изучение их мнения дадут возможность подготовить дальнейший план действий по профилактике этого заболевания.
Ключевые слова: социологическая выборка; заболевания органов пищеварения; дети школьного возраста; первичная медицинская помощь.

The decrease in school-aged children health indicators is observed over the last few years in Ukraine. For this purpose the sample survey of the children who live in cities and rural area was conducted.

Nowadays, when the practical importance of social information increases and the role of public opinion as a social institute grows in medical processes, empirical sociology functions as production that requires a large number of empirical studies and public opinion surveys.

The analysis of any social problem often causes the researcher's need to draw on certain facts that make it possible to confirm (or to dispel) the regularities, development trends, mechanism of the phenomenon determination being studied that were hypothetically anticipated by them. The social facts can be recorded in documents, various phenomena of social life, in works of scientific predecessors, etc. However, when there is a lack of data, the need to conduct a special empirical research arises in order to obtain necessary information. In this case an empirical research is a component part of sociological analysis [1].

The research project scheme included the following stages:

1. Determination of information need, that is to outline the issues to be studied and what result can actually be expected.

2. Development of a research program:

- defining of population categories who are interested in such research and their participation in it;
- determination of material, professional expenses for such research.

3. Determination of total population and sampling. Based on the definition that total population is that part of the research object to which the conclusions obtained during the research can be applied with certain accuracy, we decided to divide it into three independent groups: 1st group – school-aged children who have duodenal ulcer; 2nd group – school-aged children who have other diseases of the digestive system and the 3rd group – healthy school-aged children.

4. Development of the form. According to the divided groups of total population the unified questionnaire was developed which made it possible to estimate the results of the sociological sampling more reasonably.

5. Information gathering that included determining the categories of school-aged children for sociological sample survey, instruction of interviewers regarding the survey.

6. Selecting a program for processing and analysis of the data of sociological sampling, methods of statistical processing and forms of their presenting (tabular or graphical).

7. Presentation and interpretation of the results of sample sociological research, report writing.

The theoretical value of the results obtained was that based on mathematical modeling the influence of basic factors on the incidence process of the disease of the digestive system; based on the modeling, the suggestions regarding prevention of diseases of this nosology were conceptually presented.

The subject of the sociological sampling was the study of medical-psychological and sociological profile of school-aged children and to discover and analyze positive and negative factors on incidence of the diseases of the digestive system.

The objective of the study is the development of proposals on prevention of the diseases of the digestive system in school-aged children taking into account positive and negative factors on incidence of this disease.

In order to conduct sociological sampling, a survey had to be conducted among such categories of school-aged children, namely: children under the age of 10 years, 11-17 years (each age group separately) who live in cities and rural area.

The sociological sampling included independent groups each of which consisted of no less than 200 persons, taking into account the fact that the survey was conducted in different regions.

The preparation of a forms array to analysis consisted in coding of all forms that included the registration of the name of the forms array, numbering of each correctly completed form, coding of each question and answer options to it if extended questions were made. The unfilled or partially filled forms were rejected. The coded answers to the questions of a form were entered to a correspondent file.

After the results of the survey were entered into a computer and grouped into a correspondent file called a data array, its primary processing was performed.

In order to process the forms array and analyze the results of the sociological research we chose the program OCA that includes the basic methods of statistical analysis of primary sociological information. The program OCA is compact, easy-to-work and is available for fast learning [2-4].

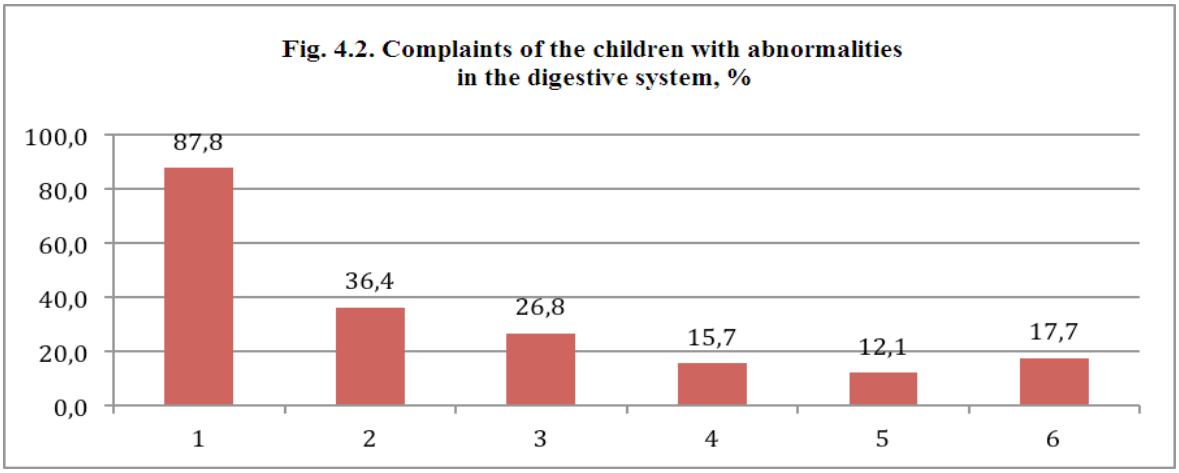
This article will present some results of sociological sampling of the abovementioned respondents.

Results of the research and their discussion. The research comprised 597 children who live in cities and rural area. We presented the results of sociological sampling of the first group which included the children with diseases of the digestion system, namely: 198 children, including: 102 children who live in cities and 96 – in rural area. The results of the sociological sampling show that the larger share of the respondents, namely boys among city inhabitants amounted to 55.88 %, and among rural inhabitants it amounted to 54.17 %. The share of girls amounted to 44.12 % and 45.83 %. As for the age, the largest share included the children aged 17 years. Among the surveyed urban children their share amounted to 40.19 %, and among the rural ones – 48.96 %. The smallest share included children aged 10 years and less: city inhabitants – 1.96 years, and there were no sick with gastroduodenal ulcer among the rural children of the abovementioned age.

By the urban families' social status the largest group included the families of civil servants (42.16 %), workers (22.55 %) and entrepreneurs (16.67 %), and the least one included the disabled (1.96 %) and the military (2.94 %). The share of the families where parents are unemployed amounted to 13.73 %. Among the rural families the largest group included the families of workers (30.21 %) and unemployed (30.39 %), and the least one – civil servants (7.29 %). There were no families where parents are disabled or military among rural families.

Among both the urban (75.49 %) and the rural children the largest share included two-parent families. At the same time, 4.90 % urban children are brought up at boarding schools. 31.37 % surveyed urban and 4.17 % rural inhabitants pointed out decent income, and 17.65 % urban and 12.50 % rural inhabitants pointed out that they have not enough income for the most necessary things, 3.92 % and 6.25 % respectively live poorly. Among the surveyed urban children 67.64 % have good living conditions and among the rural ones - 94.79 %. At the same time 13.73 % urban children live in dormitories. 48,04 % urban children have and 32.29 % rural children have their own room, the rest of the children have space for studying at home. At the same time 92.16 % urban and 63.54 % rural children have a personal computer. 38.24% fathers and 31.37% mothers who live in cities have higher education, 11.76 % and 12.75 % respectively have incomplete secondary education. The largest share among the fathers from the rural area includes the fathers who have complete secondary education (58.33 %), and the least one includes the fathers who have incomplete higher education (3.13 %). Among the rural mothers the largest share includes the mothers who finished comprehensive school (52.08 %), and the least one includes the ones who have undergraduate education and higher education (5.21 %).

In the part of the children (24.8 %) the first symptoms of the disease of the digestive system appeared at the age under 10 years inclusive. The largest age share included the children aged 12 (21.7 %) and 13 years (19.7 %). The main symptom in children is pains of various nature. The share of the children who have this symptom is 87.8 %. The next in order of frequency are the following symptoms: heatburn – 36.4 %; bitter taste in a mouth – 26.8 %; constipations – 17.7 %; belching – 15.5 %; diarrhea – 12.1 % (fig. 1).



Note: 1) pains of various nature; 2) heatburn; 3) bitter taste in a mouth; 4) belching; 5) diarrhea; 6) constipations.

When the complaints of abnormalities in the digestive system appeared in children, 70.59% urban children and 58.82% rural children sought medical advice. 18.63 % urban and 21.88 % rural inhabitants sought medical advice when the first symptoms of the disease aggravated. Correspondently 10.78 % and 14.70 % did not seek medical advice at the first stage of the disease.

Among the ones who did, 70.59 % urban and 63.54 % rural inhabitants were accepted for outpatient treatment. At the same time 70.59 % urban and 59.38 % rural children were treated regularly.

When the children sought medical assistance the following diagnoses were made. Urban children: chronic gastritis (25.49 %) and biliary dyskinesia (22.55 %). Rural children: chronic gastritis (31.25 %) and biliary dyskinesia (19.79 %). The ulcer diagnosis was made the most frequently in 4-6 (47.5 %) and 6-8 (32.3 %) years after the first symptoms of the disease appeared (fig. 2).

It was established that 54.90 % sick urban children are followed up by pediatric physician of a children's polyclinic, 20.59 % - by a general practitioner-family physician, 10.78% - by children's gastroenterologist, 4.90% – by school pediatric physician and 8.82% do not have a permanent physician. Among rural sick children 53.13% are followed up by a pediatric physician of a polyclinic, 40.63% - by a general practitioner-family physician and 6.25% have no permanent physician. 94.12% urban and 95.83% rural sick children are under medical observation. At the same time 62.75% urban and 60.42% rural sick children regularly undergo anti-relapse treatment. 10.78% urban and 7.29% rural sick children did not undergo anti-relapse treatment at all. From the total amount of the sick children 17.65% urban and 19.79% rural sick children did not undergo in-hospital treatment; 35.29% and 56.25% respectively did not undergo health resort treatment.

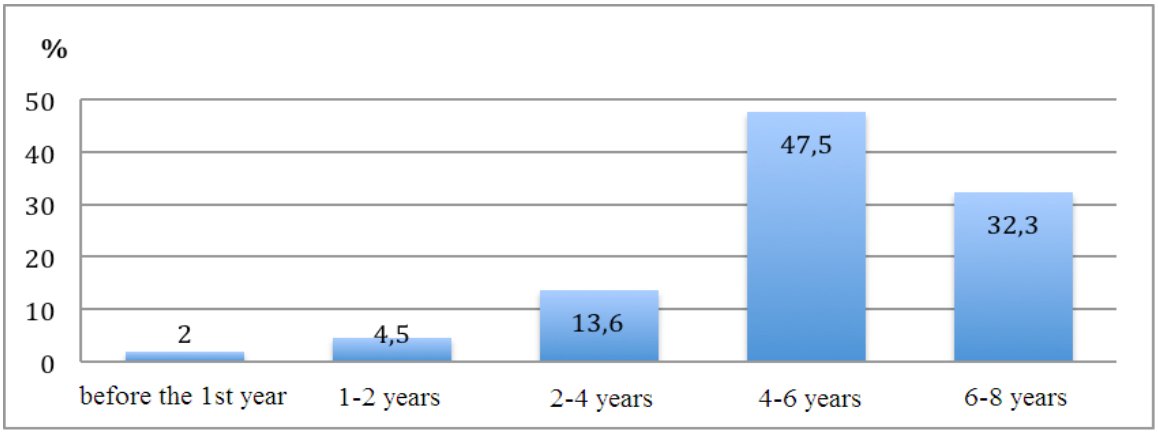


Fig. 2. Period from developing of the first signs of the disease to making the diagnosis of duodenal ulcer, years, %
Note: 1) before the 1st year; 2) 1-2 years; 3) 2-4 years; 4) 4-6 years; 5) 6-8 years.

The high rate of heredity of ulcer disease in the children was revealed. Thus, 26.47% fathers, 20.59% mothers, 31.38% paternal grandfathers, 20.59% maternal grandmothers, 11.76% siblings of the urban sick children have or had gastroduodenal disease. 30.21% fathers, 18.75% mothers, 23.96% paternal grandfathers, 21.86% maternal grandfathers of the rural sick children had gastroduodenal disease.

The significant share of the children does not keep a healthy lifestyle. Thus, 67.65% urban children have sedentary lifestyle, 28.43% smoke, 16.67% drink alcohol, play computer games 4.5±0.5 hours every day; 57.29% rural children have sedentary lifestyle, 12.50% smoke, 15.63% drink alcohol, play computer games 2.0±0.3 hours every day.

In addition, during their illness the significant number of the children become tired at their ordinary load. Thus, 87.8% children get tired during school lessons, 85.4% - at doing homework, 93.9% - at physical exercises, 76.3% - at doing housework, 95.5% - at sports activities (from the number of the children who do sports).

Fig. 3 presents the data on fatigue of children with duodenal ulcer disease during certain loads.

It has also been established that the significant share of the urban children have unfriendly and hostile relationship: between the children at school (26.47% and 10.78% respectively), between the children outside school (24.51% and 8.83%), between the children and teachers (28.43% and 8.83%). In rural area this rate is significantly lower: between the children at school (5.21% and 1.04% respectively), between the children outside the school (20.83% and 3.13%), between the children and teachers (12.50%). In addition, the sick children have certain character disturbances. Thus, 30.39% urban children are reserved, 23.53% are irritable, and 20.59% sink into depression. At the same time 28.43% are hot-tempered and the significant share of them has complicated relations with members of their families. 41.18% think that their character changed after the disease onset. 19.79% rural children are reserved, 29.17% are irritable, and 7.29% sink into depression. At the same time 11.46% are hot-tempered and the considerable share of them has complicated relationship with members of their families. 32.29% think that their character changed after the disease onset. It should be noted that 45.90% respondents have good relationship in family. Conflicts occasionally arise in 29.4% families, and conflicts are permanent in 24.7% families.

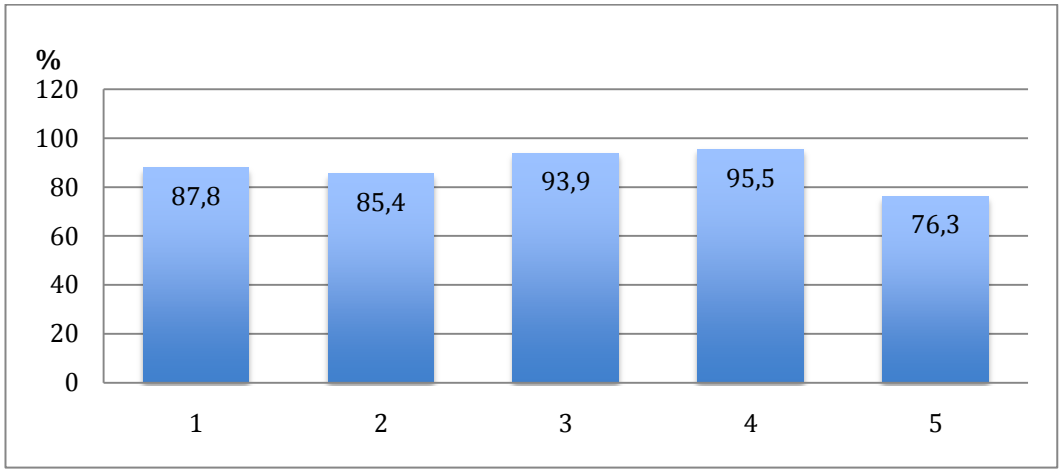


Fig. 3. Fatigue of the children after the duodenal ulcer disease onset during certain loads
Note: 1) during school lessons; 2) at doing homework; 3) at physical exercises;
4) at doing sports; 5) at doing housework.

The acute condition has influence on the children's quality of life. Thus, in 41.18% urban sick children has influence on the quality of sleep, 37.25% - on sports activities and character, in 35.29% - on academic progress, 23.53% relationship with other children, etc. The acute

condition has influence on the quality of sleep in 37.50% rural children, on sports activities in 35.42%, on physical exercises and relationship with other children in 29.17%, on relationship with members of their families in 21.86%.

It has been established that the sick children eat better but not enough sensibly. Urban children: daily consumption of hot meals (90.19%), consumption of fried and spicy food (50.00%), daily consumption of crisps and croutons (31.37%), consumption of fish 3-4 times a week (60.78%), daily consumption of vegetables and fruit (70.59%). Rural children: daily consumption of hot meals (84.38%), consumption of fried and spicy food (19.79%), daily consumption of crisps and croutons (9.38%), consumption of fish 3-4 times a week (5.21%), daily consumption of vegetables and fruit (66.67%).

71.4% children spend time outdoors every day, and 92.4% children spend time outdoors at weekends, whereby 19.7% children have trips to nature. 29.3% children spend their holidays at the seaside and 37.4% children – in nature.

Conclusion. The results of surveying school-age children and other population categories, study of their opinion will give an opportunity to prepare the actions plan to prevent this disease.

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