Academicia Globe:
Inderscience Research

ISSN: 2776-1010 Volume 4, Issue 12, December 2023

PREDICTIVE AND PREVENTIVE PRINCIPLES OF DISEASE PREVENTION IN PRESCHOOL CHILDREN

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ABSTRACT

It is necessary to study and analyze the diseases of children of different age groups on the basis of improvement of medical and social assistance to children, improvement of effectiveness of preventive activities, and on the basis of these, measures aimed at maintaining and protecting children's health should be developed. In the study, diseases of preschool children were analyzed in depth, and their causes were studied. The obtained results showed that the incidence of children under seven years of age in Andijan depends on age, and the incidence rate decreases with age. In the structure of diseases, diseases of respiratory organs are leading at all ages. If the study of children's diseases under 7 years of age in the cities of Andijan region on the basis of appeals revealed the characteristics of children's diseases specific to this region, then the children who were not identified before the organization and conduct of medical examinations, without clinical symptoms, were registered in treatment-preventive institutions. allowed to identify new chronic diseases.

Keywords. Children, morbidity, children of preschool age, urban children, level of morbidity, causes

АННОТАЦИЯ

Болаларга тиббий-ижтимоий ёрдамни такомиллаштириш, профилактик ишлар самарадорлигини ошириш негизида турли ёш гуруҳидаги болалар касалланишини ўрганиш ва таҳлил қилиш ва шулар асосида болалар саломатлигини сақлаш ва муҳофаза қилишга қаратилган чоралар ишлаб чиқиш кераклигини тақозо этади. Тадқиқотда мактабгача ёшдаги болалар касалланишларини чуқур таҳлил қилинди, сабабларини ўрганилди. Олинган натижалар шуни кўрсатдики, Андижон шаҳар етти ёшгача бўлган болалар касалланиши ёшга боғлиқ бўлиб, ёш орта бориши билан касалланиш даражаси камайиши қайд этилди. Касалланишлар структурасида барча ёшда нафас олиш аъзолари касалликлари етакчилик қилади. Андижон вилояти шаҳар ва қишлоқларида 7 ёшгача болалар касалланишларини мурожаатлар асосида ўрганиш шу худудга хос болалар касалланиш хусусиятларини очиб берган бўлса, тиббий кўрикларни ташкил этиш ва ўтказиш олдин аниқланмаган, клиник белгиларсиз кечувчи, даволаш - профилактика муассасаларида рўйхатга олинмаган, янги сурункали касалликларни аниқлаш имконини берди.

Academicia Globe:
Inderscience Research

ISSN: 2776-1010 Volume 4, Issue 12, December 2023

Калит сўзлар. Болалар, касалланиш, мактабгача ёшдаги болалар, шаҳар болалари, касалланиш даражаси, сабаблари

АННОТАЦИЯ

Совершенствования медико-социальной помощи детям, повышения эффективности профилактических мероприятий направленных на сохранение и охрану здоровья, важное место имеет изучение заболеваемости детей разных возрастных групп в регионах. В ходе исследования были углубленно проанализированы заболевания детей дошкольного возраста, изучены их причины. Полученные результаты показали, что заболеваемость детей до семи лет в Андижане зависит от возраста, с возрастом показатель заболеваемости снижается. В структуре заболеваний лидируют болезни органов дыхания во всех возрастных группах. При изучении заболеваемости детей до 7 лет в городах Андижанской области на основании обращений выявлены особенности детских болезней, характерных для данного региона, медицинские осмотры позволили выявить новые хронические заболевания без клинических симптомов детей не выявленные до организации и проведения диспансеризации, состоявших на учете в лечебно-профилактических учреждениях.

Ключевые слова. Дети, заболеваемость, дети дошкольного возраста, городские дети, уровень заболеваемости, причины

Maintaining children's health, early detection and elimination of diseases, especially for this special population, improving and developing primary, secondary and tertiary prevention systems, is a very urgent issue of health care, pediatrics and preventive medicine.

Research in this direction is still insufficient, and therefore, according to the results of available scientific sources, the rates of child mortality and morbidity, especially in preschool age, remain high (15, 16).

In Uzbekistan, by the decree of the President of October 11, 2023, PF-158, specific topical issues for science have been cross-referenced, and specific goals have been set until 2030. In particular, tasks have been set to increase genetic disease screening up to 50% and reduce genetic diseases by half, and reduce infectious and non-infectious diseases in children by 20%.

In general, development of a system of prevention and detection of children's diseases at the donosological stage is considered to be an actual scientific topic today. Development of the scientific basis of medical care based on the priority of prevention is considered an urgent topic and necessity in the medicine of Uzbekistan.

On an international scale, meaningful and substantial epidemiological studies have been carried out, in which the epidemiology of children's diseases has been studied and the principles of prevention have been developed (2,3,22). Researchers in Uzbekistan tackled this topic and made scientific conclusions mainly based on official statistical data (1,6,5,9).

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They attract attention from the methodological point of view and gain importance, but they cannot reflect the real medical-epidemiological conditions of the present day. The conclusion based on official statistics is several times less than the real situation, effective and effective treatment cannot serve as a basis for creating preventive algorithms for children's diseases, or only epidemiological studies are needed to determine and evaluate the true epidemiological situation and to modify and develop appropriate preventive algorithms. . At the WHO level, exactly such a recommendation was written or demanded (7,8,18,24,25).

In the territory of Uzbekistan, including the conditions of the Fergana Valley, such a unified and standardized epidemiological study devoted to the main infectious and non-infectious diseases in preschool children has not been conducted.

Taking this into account, this study was carried out, in which the priority directions of the development of science and technology of the republic were taken into account. It was carried out within the framework of the scientific project on the topic "Development of scientifically-based measures - measures to improve health indicators and living environment among different population groups of the Republic of Uzbekistan".

The purpose of the research is to assess the incidence of preschool-aged children, the medical and social factors that affect them, and to develop a set of measures and activities aimed at improving children's health and the quality of medical care. For the first time, children of pre-school age and families where children are being raised in Andijan region were taken as the object of the research. Diseases of these children in the region, risk factors, lifestyle and conditions of the family, satisfaction of the population with the provided medical-social and preventive care were taken as the subject of the research.

The study followed WHO requirements for organizing and conducting epidemiological studies, working with the population, and clinical recommendations of international scientific communities on preventive medicine (Russian Scientific Society of Cardiology, 2020; European Scientific Society of Cardiology, 2018).

Multilevel random selection methods (cluster, stratification, cohort) were used to study the health of preschool children. Epidemiological, social-hygienic, sociological, sanitary-peace and expert evaluation methods were used at all stages of the research.

They complement each other, the volume of primary materials is sufficient, the analytical and prognostic indicators are improved with new approaches, the reliability and validity of the obtained results and conclusions are ensured.

The research has unique and unrepeatable aspects, in particular, a number of scientific innovations have been confirmed and proven for the first time. In particular, the dynamics of the six-year comparative epidemiological description of the main diseases in the population of urban and rural pre-school children of Andijan was analyzed.

First of all, the level and structure of morbidity of the children's population under the age of 7, its main risk factors and age-specific characteristics of diseases were determined. A comprehensive classification was given to the medical and social aspects of families raising preschool children.

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ISSN: 2776-1010 Volume 4, Issue 12, December 2023

The study was the first to study the dynamics of changes in demographic processes in Andijan and to determine their impact on the incidence of major diseases and risk factors.

His other unique scientific innovation was that the dynamics of the cumulative effect of medical and social factors, family living conditions and lifestyle on the indicators of preschool children's diseases in urban and rural conditions from infancy to the age of 7 were studied, and their dynamics for each age group relevant risk factors were determined and risk groups were defined.

Such targeted work has not been conducted in the study area, but new and clinical studies have been conducted in other regions and populations. Scientific innovations and methodological aspects differ sharply from others and gain relatively high authority (18,20,23).

The results of the research were published at the international and national level and were put into practice, their efficiency and effectiveness were recognized.

In particular. Based on the results of the conducted research, it was possible to develop scientific-based comprehensive preventive measures to improve the provision of medical services to children, prevent diseases and improve the health of children.

The products developed during and at the end of the research years were applied to primary treatment prevention institutions and educational processes, and positive results were obtained.

It is concluded that the dissertation developments lead to a sharp decrease in the number of diseases in children and a significant decrease in the number of deaths compared to a control group of "healthy children".

The research was carried out in children under 7 years old, involving 1 city (Andijan district), 2 districts (Asaka and Baliqchi districts), 1 polyclinic of the KSHP network and 8 family polyclinics.

A total of 2100 children under 7 years of age were studied in a retrospective epidemiological study.

1st, 2nd in Andijan city. The 8th and 6th polyclinics were selected by the "bird's nest - nested selection" method, attached to them, and 1050 children (530 boys and 520 girls) who turned 3 years old in 2019 were monitored in their health dynamics from birth until they turned 7 years old. was studied.

The population of rural children under 7 years of age from Asaka and Baliqchi districts and their attached rural family polyclinics (QOP) is 1,050 children (510 boys and 540 girls) who turned 3 years old in 2019, with a margin of error of no more than 3%, Asaka district 5- . 6-. 7th, 12th - family polyclinic and ChEK and Chorbog OShPs and 14th from Baliqchi district. The 16th and 18th OPs were selected from Sheralichek, Tumor and Navoiy OShPs . The dynamics of diseases in all children's population was studied up to seven years of age.

Data were compiled into the "Under-Seven-Year-Old Morbidity and Health Care Survey Map". Study materials - child development card (112 - sh), exchange map (113 - sh) and inpatient map (003 - sh).

An in-depth medical examination was conducted in the third, fourth and fifth stages of the study. "True" incidence rates were assessed.

In the population it is necessary to show "cohort" research method (KTU) was used in the study. In this method, the risk factor affecting the health of the population and its consequences were studied, in contrast to the case control method, in which the frequency of new cases was estimated and the method widely used in the study of prognosis was calculated.

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Absolute and relative risk were determined in the cohort research method: 1) absolute risk - represents the probability of development of the studied disease when preventive measures are implemented and these measures are implemented, and is calculated separately for each factor gradation; 2) the relative risk indicates the degree of correlation of the risk factor with the disease or the outcome of the disease or expresses the importance of the factor affecting the result being studied; 3) if the relative risk index is equal to 1.0, the risk factor was considered statistically insignificant; 4) if the relative risk is equal to 2.0, the risk of morbidity or endpoint is more than doubled; 5) child-assisted assessment, odds ratio, weight coefficient, and other methods were used to study the risk factors affecting morbidity rates of children up to seven years of age.

The obtained results made it possible to make conclusions of medical and economic importance.

For example, contrary to previously known conclusions, as children grow older (after one year of age), it was noted in our study that diseases detected during screening increase mortality.

The ratio of children's disease to gender has been studied by many researchers in their scientific works, and they have noted a higher incidence rate in boys compared to girls (4,13, 14,19,21,26).

In contrast to them, our results showed that the incidence of boys was slightly higher than that of girls in all years of children's life. But in the first year of a child's life, it was found that the incidence of girls is higher than that of boys. On average, 35.8% of diseases were recorded in boys during medical examinations, while 45.1% of diseases were detected in girls.

While children applied to primary health care institutions with more acute diseases (acute bronchitis, hepatitis, injuries, etc.), during the screening (complex epidemiological) investigation, mostly hidden chronic diseases (anemia, goiter, gastritis, etc.) were detected. In boys, acute intestinal infections, hepatitis, gastroenteritis, bronchitis and injuries were noted at high prevalence; girls develop anemia, goiter, oral cavity diseases. Gender differences in such diseases are expressed by the anatomo-physiological characteristics of the organism of boys and girls, as well as the activity and mobility of boys compared to girls. Or we think that such interpretation is logically correct.

The results obtained in general confirm that the study of the main risk factors and the use of the evaluation system at the stage of children's life at the age of 0-7 years are of theoretical (with radical reformation of the existing donosological diagnosis and prevention system) and social-economic-medical (sharp reduction of the disease and its consequences) importance. earns.

It follows from the analysis of the results that it is appropriate to use the retrospective epidemiological cohort method for screening diseases and their risk factors in children. Because our analyzes guarantee and ensure that the results are of high reliability and quality.

An in-depth study of the incidence of urban and rural children under the age of seven in the Andijan region in general revealed some age-related characteristics of urban and rural children. This, in turn, makes it possible to use it in the measures developed for the health and treatment of children.

It should be noted separately that we divided urban and rural children of Andijan region into 1-year-old, 2-4-year-old, and 5-7-year-old groups in the study of diseases under the age of seven, and divided them into 3 groups: children who did not consult a doctor due to diseases during a healthy year, We divided into epizootic patients - children who were referred 1-3 times due to diseases during the year

ISSN: 2776-1010 Volume 4, Issue 12, December 2023

and frequent patients - children who were sick 4 or more times during the observation year, or who were sick once and the period of illness lasted up to 25 days, as well as children with chronic diseases. Screening with such an approach increases the possibility of studying and evaluating the impact of medical, social and biological factors on children's diseases, or such results are achieved.

Changes in health indicators depending on the age of children were evaluated and it was confirmed that the number of healthy children increases depending on age or as it grows, and the number of children with episodic and frequent illnesses decreases. For example, it was noted that the number of healthy children in the 2-4 age group has doubled compared to the age of 1, and on the contrary, the number of children who get sick has halved.

The absence of such studies for comparative analysis, in contemporary pediatric populations and in valley settings, is particularly noteworthy.

The results of our prospective research reliably confirm that the morbidity and mortality of children, in many ways, are directly dependent on the timely application of preventive examinations, the fulfillment of the recommendations given by the doctor, the ability of parents to provide first aid to children, and the level of their hygienic-preventive and medical knowledge.

In the study, the epidemiological characteristics of regional aspects of the spread of the main diseases and risk factors in preschool children were studied and evaluated.

It is confirmed that the prevalence of the main diseases in children is observed at the highest level in the first year of their life, as noted above, and the age-related "true" detection rates decrease according to the referrals, up to 89.1% (in boys) and 22.4% (in girls) in the case of a screening approach. is increasingly confirmed. Regular organization, recommendation and application of epidemiological monitoring to 6- and 7-year-olds dramatically increases the possibility of early detection and elimination of "hidden" and "silent" diseases. Reduces future diseases and their consequences in the adult and elderly population.

Our results almost reflect the trends noted by studies in this direction in near and far foreign countries (10,12, 17).

It was revealed by our compatriot scientists that in the Fergana Valley, the rate of registration of marriages between related clans in rural areas is higher than in urban areas (9). Our results also confirmed this and showed that this factor is high among the rural population. In particular, it was confirmed that marriages between close and distant relatives are twice as high in the countryside than in the city. It was found that 75.3% of parents in the city and 54.3% in the village are not related.

In addition, the number of pregnancies, the number of births, the age of the mother, the length of pregnancy, the interval between births, the weight of the child at the time of birth, the condition of the child at the time of birth, the morbidity of the first year of the child, factors of lifestyle and conditions and the medical activity of family members are also confirmed as risk factors. .

Taking these into account, changing and improving the medical care system increases medical efficiency in children by up to 90%.

It is important to improve the system of early detection and forecasting of diseases in the children's population. Taking this into account, in our research, a prognostic table was developed in connection

ISSN: 2776-1010 Volume 4, Issue 12, December 2023

with the indicators of children's diseases under the age of 7, the main social-hygienic, medical-biological factors affecting them. The main purpose of using the prognostic table was to identify the main factors that cause diseases in children, to divide them into risk groups and to develop measures aimed at preventing diseases in each group.

According to the prognostic table, the entire population of children was divided into 3 groups - "group with good prospects", "group that attracts attention" and "group with poor prospects". The active system of stratified individual prevention was divided into "good perspective group" (hazard ratio 13.0 - 20.3; "lowest risk"), "attention group" (hazard ratio 20.3 - 27.3; risk average group) and "poor perspective" (risk scale - 27.3 - 37.2; the highest level of risk). Accordingly, primary, secondary and tertiary prevention measures for children's diseases were carried out.

Preventive practice based on this forecasting table gives significant positive results - unnecessary hospital admissions are reduced, every fifth patient is eliminated from the risk of drugs in children, donosological stages of diseases - 100 are coordinated or prevented in 90 cases.

Prognosis-based donosological diagnosis increases the effectiveness of prevention and treatment to 100.0%. A strong foundation will be laid not only for childhood, but also for chronic infectious and non-infectious diseases among the population , prevention of therapeutic continuums.

CONCLUSIONS

1. A retrospective epidemiologic cohort is recommended for screening of diseases and their risk factors in children. This method guarantees quantitative epidemiological results with high reliability (level F) and quality (level I – practical class recommendation).
2. The prevalence of the main diseases in children is observed at the highest level in the first year of their life, and the age-related "true" detection rates decrease according to referrals and increase to 89.1% (in boys) and 22.4% (in girls) in the screening approach. . It is precisely in 6- and 7-year-olds that the regular organization, recommendation and application of epidemiological monitoring dramatically increases the possibility of early detection and elimination of "hidden" and "silent" diseases. Reduces future diseases and their consequences in the adult and elderly population.
3. Based on epidemiological monitoring, the establishment and implementation of a preventive program in children will reduce infectious and non-infectious diseases by 80.0%.
4. The following are confirmed as risk factors for the main diseases in preschool children and repeated with high prevalence frequencies: number of pregnancies, number of births, age of the mother, length of pregnancy, marriage between relatives, interval between births, birth weight of the child, condition of the child at the time of birth, child's first age morbidity, lifestyle and condition factors (8) and medical activity of family members (5). Taking these into account increases the level of medical activity and effectiveness in children up to 90%.

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