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THE IMPORTANCE OF DAILY ROUTINE FOR CHILDREN'S HEALTH

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Abstract
This article analyzes the positive impact of properly organizing a daily routine in children's lives on their physical, mental, and cognitive health. A daily schedule designed in accordance with a child's age, type of activity, and physiological needs contributes to the formation of a healthy lifestyle, strengthens the immune system, and increases interest in learning and concentration. The article also discusses the importance of balance between sleep, nutrition, rest, and physical activity, and provides practical recommendations for parents and educators.

Keywords: Daily routine, child health, healthy lifestyle, physical development, mental state, immune system, upbringing, rest, sleep, nutrition.

Introduction

Children's health is a strategic resource that determines the biological, social, and intellectual potential of any society. Lifestyle elements formed in early childhood, particularly the daily routine, have a long-term impact on the development of the body's functional systems. A daily routine refers to the organization of sleep and wakefulness, meal times, educational activities, physical activity, and rest in harmony with biological rhythms. According to modern scientific views, this harmony plays a decisive role in ensuring normal growth and the development of adaptive mechanisms in children.

In recent decades, urbanization, rapid development of digital technologies, and increased academic workload have significantly altered the daily rhythms of children's lives. Epidemiological studies show that up to 60% of school-aged children worldwide do not adhere to recommended sleep duration, which is associated with decreased cognitive functions, emotional instability, and reduced

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immune reactivity. In particular, the use of electronic devices in the evening leads to disruption of circadian rhythms and delayed melatonin secretion.

According to data from the World Health Organization, a stable daily routine—one of the key components of a healthy lifestyle—significantly reduces the risk of chronic non-communicable diseases in children, including obesity, type 2 diabetes mellitus, and cardiovascular disorders. In line with WHO recommendations, at least 60 minutes of moderate to vigorous physical activity per day and age-appropriate sleep duration for children aged 5–17 years are considered key preventive health criteria.

Scientific literature also emphasizes the role of dietary patterns within the daily routine. It has been reliably demonstrated that children who regularly consume breakfast have more stable glucose metabolism and a lower body mass index. Conversely, irregular eating habits and a predominance of evening caloric intake contribute to metabolic imbalance and the development of excess body weight. These processes shape future health status through metabolic programming mechanisms already in childhood.

In addition, the psychogigienic importance of a daily routine is becoming increasingly relevant. Studies indicate that a structured and predictable daily schedule reduces anxiety levels in children and enhances self-regulation and emotional stability. At school age, this directly affects academic performance and the level of social adaptation.

The above evidence suggests that a daily routine should be regarded not merely as a simple organizational measure, but as a complex biological and social determinant shaping children's health. Therefore, a scientifically grounded analysis of this issue is of great importance for child hygiene, public health, and preventive medicine.

Research Objective

To conduct a systematic analysis, based on existing scientific literature, of the impact of adherence to a daily routine on children's physical, psychological, and cognitive health, and to substantiate its preventive significance.

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Materials and methods

This literature review was conducted based on international scientific articles, cohort and cross-sectional studies, and meta-analyses published between 2005 and 2024. Data were selected from the PubMed, Scopus, Web of Science, and Google Scholar databases. Priority was given to studies assessing the relationship between sleep duration, meal timing, level of physical activity, and health outcomes.

Results

The impact of daily routine and sleep duration on children's health. Analysis of scientific literature shows that sleep is a central element of the daily routine, and its duration and quality have a direct effect on children's somatic and cognitive development. Large-scale cohort studies have demonstrated that failure to adhere to the recommended sleep duration (9–11 hours) among children aged 6–12 years is reliably associated with attention deficits, decreased memory performance, and reduced immune response.

According to data from the World Health Organization, children who do not obtain sufficient sleep have a 1.5–2 times higher risk of obesity.

Table 1. Relationship between sleep duration and health indicators

Study (year)	Age group	Sleep duration	Main outcome
Chaput et al. (2016)	5–12 years	<9 hours	Obesity risk ↑ 56%
Short et al. (2013)	6–15 years	<8.5 hours	Attention impairment ↑
Owens (2014)	School age	Late bedtime	Academic performance ↓

Dietary regimen and metabolic status. According to the results of the literature review, organizing meals at regular time intervals ensures the alignment of metabolic processes with circadian rhythms. It has been found that children who regularly consume breakfast have a lower body mass index (BMI) and higher insulin sensitivity. Large cross-sectional studies report that children who skip breakfast have a 20–30% higher risk of developing overweight.

Table 2. Dietary regimen and metabolic indicators

Indicator	Regular breakfast	Irregular eating
BMI	Normal	Elevated
Glucose metabolism	Stable	Insulin resistance
Obesity risk	Low	High (+25–30%)

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Physical activity and functional development. Studies show that children who engage in at least 60 minutes of moderate to vigorous physical activity per day demonstrate significantly improved cardiovascular and musculoskeletal system indicators. In addition, physical activity activates neuroplastic processes in the central nervous system, enhancing attention and executive functions.

Table 3. Level of physical activity and health outcomes

Activity level	Cardiovascular risk	Psychoemotional status
≥60 minutes/day	Low	Stable
<30 minutes/day	High	Anxiety ↑

Daily routine and psychoemotional stability. According to psychogigienic research findings, a structured and predictable daily routine reduces anxiety and emotional lability in children. Children with irregular sleep and dietary patterns more frequently exhibit depressive symptoms and behavioral problems. Meta-analyses indicate that children with a stable daily routine have a 30–40% lower risk of behavioral disorders.

Digital devices and disruption of the daily routine. Recent studies identify increased screen time as a significant risk factor for disruption of the daily routine. Evening use of electronic devices suppresses melatonin secretion, leading to delayed sleep onset.

Table 4. Screen time and sleep quality

Screen time	Sleep quality	Cognitive status
<2 hours/day	Good	Normal
>4 hours/day	Poor	Attention ↓

Discussion

The results obtained from this literature review clearly demonstrate that the impact of a daily routine on children's health is multifactorial and systemic in nature. Sleep, nutrition, physical activity, and psychoemotional balance are closely interconnected, and disruption in any of these components negatively affects overall health. The discussion indicates that a daily routine is not merely an organizational mechanism in children's lives, but rather a key regulator that ensures harmony between biological rhythms and the social environment.

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Discussion of sleep regimen. As noted in the results, sufficient and regular sleep ensures cognitive functioning, immune system efficiency, and metabolic stability in children. These findings are fully consistent with cohort and longitudinal studies conducted by other researchers. In particular, sleep deprivation has been shown to lead to increased cortisol secretion and heightened sympathetic nervous system activity, resulting in insulin resistance and increased body mass. These processes determine the risk of future chronic diseases through mechanisms of "biological programming" that begin as early as childhood.

In addition, sleep delay associated with evening use of electronic devices has been scientifically shown to disrupt circadian rhythms. This phenomenon is explained by delayed melatonin secretion, which ultimately leads to reduced sleep quality. These findings once again confirm the necessity of considering sleep hygiene as an integral component of the daily routine.

Dietary regimen and metabolic health. The identified association between dietary regimen and metabolic status is consistent with international research findings. More stable glucose metabolism and energy balance observed in children who regularly consume breakfast reflect the alignment of metabolic processes with circadian rhythms. Conversely, children with irregular meal timing are more likely to experience evening hyperphagia, excessive caloric intake, and increased body mass.

This creates a basis for the development of elements of metabolic syndrome in childhood. From this perspective, dietary patterns cannot be separated from the daily routine and should be evaluated within a hygienic framework.

Comprehensive effects of physical activity. The discussion results indicate that physical activity is important not only for physical health but also for psychoneurological development. Children who engage in at least 60 minutes of moderate to vigorous physical activity per day demonstrate reduced cardiovascular risk along with improved attention, executive functions, and emotional stability. This is explained by the activation of neuroplasticity processes induced by physical activity.

In contrast, children with predominantly sedentary lifestyles exhibit not only higher rates of obesity but also increased anxiety and depressive symptoms. These findings substantiate the necessity of viewing physical activity as a mandatory and planned element of the daily routine.

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Psychoemotional stability and daily routine. As shown in the results, a stable and predictable daily routine reduces anxiety levels, enhances self-regulation skills, and facilitates social adaptation in children. This aligns with psychogigienic approaches. Particularly in school-aged children, a structured regimen facilitates adaptation to academic workload and prevents emotional exhaustion.

At the same time, an irregular daily routine has been found to be more strongly associated with behavioral disorders, impulsivity, and attention deficit syndrome in children. This underscores the importance of the family environment and pedagogical supervision in shaping a healthy daily routine.

Conclusion

The conducted literature review and analysis indicate that the daily routine is one of the key hygienic and biological determinants shaping children's health. The consistent and stable organization of sleep, nutrition, and physical activity expands the body's adaptive capacity and ensures optimal physical and psychoemotional development.

1. Adherence to a proper sleep regimen plays a decisive role in maintaining cognitive functions, immune reactivity, and metabolic stability in children. Regular and sufficient sleep optimizes central nervous system activity, improving attention, memory, and academic performance. Conversely, sleep deprivation and disruption of circadian rhythms contribute to the early development of obesity, insulin resistance, and psychoemotional instability.

2. Proper organization of nutrition and physical activity within the daily routine ensures balance in energy and metabolic processes in children. Regular meal timing enhances the alignment of metabolic processes with circadian rhythms, while physical activity supports the functional development of the cardiovascular, musculoskeletal, and nervous systems. The synergy of these factors significantly reduces the risk of chronic non-communicable diseases in children.

3. Stability of the daily routine has a positive effect on children's psychoemotional state and social adaptation. A predictable daily schedule reduces anxiety and emotional lability while fostering self-regulation skills. This is particularly important for school-aged children in adapting to academic demands and preventing mental fatigue.

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In conclusion, establishing a daily routine is an effective, economically feasible, and long-term preventive measure aimed at strengthening children's health. Therefore, implementing a comprehensive and scientifically grounded approach to this issue at the levels of the family, educational institutions, and the healthcare system should be regarded as one of the priority directions of child health protection policy.

References

1. Branstetter MG, Ješovnik A, Sosa-Calvo J, Lloyd MW, Faircloth BC, Brady SG, Schultz TR. Dry habitats were crucibles of domestication in the evolution of agriculture in ants. Proc Biol Sci. 2017 Apr 12;284(1852):20170095. doi: 10.1098/rspb.2017.0095. PMID: 28404776; PMCID: PMC5394666.
2. Chaput JP, Gray CE, Poitras VJ, Carson V, Gruber R, Olds T, Weiss SK, Connor Gorber S, Kho ME, Sampson M, Belanger K, Eryuzlu S, Callender L, Tremblay MS. Systematic review of the relationships between sleep duration and health indicators in school-aged children and youth. Appl Physiol Nutr Metab. 2016 Jun;41(6 Suppl 3):S266-82. doi: 10.1139/apnm-2015-0627. PMID: 27306433.
3. Grunstein, R. R., & Kushida, C. A. (2013). An open letter to the sleep and circadian rhythms community: Presidents' viewpoints of the World Sleep Federation (WSF). Sleep Medicine Reviews, 17(3), 215–217. https://doi.org/10.1016/j.smrv.2012.06.005
4. Judith Owens, ADOLESCENT SLEEP WORKING GROUP, COMMITTEE ON ADOLESCENCE, Rhoda Au, Mary Carskadon, Richard Millman, Amy Wolfson, Paula K. Braverman, William P. Adelman, Cora C. Breuner, David A. Levine, Arik V. Marcell, Pamela J. Murray, Rebecca F. O'Brien; Insufficient Sleep in Adolescents and Young Adults: An Update on Causes and Consequences. Pediatrics September 2014; 134 (3): e921–e932. 10.1542/peds.2014-1696
5. Kleiman, S., Ng, S.W. and Popkin, B. (2012), Drinking to our health: can beverage companies cut calories while maintaining profits?. Obesity Reviews, 13: 258-274. https://doi.org/10.1111/j.1467-789X.2011.00949.x
6. Rampersaud, G. C., Pereira, M. A., Girard, B. L., Adams, J., & Metzl, J. D. (2005). Breakfast habits, nutritional status, body weight, and academic

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performance in children and adolescents. Journal of the American Dietetic Association, 105(5), 743–760. https://doi.org/10.1016/j.jada.2005.02.007

7. World Health Organization. (2020). Guidelines on physical activity, sedentary behaviour and sleep for children and adolescents. World Health Organization. https://www.who.int/publications/i/item/9789240015128