

Exploring the Relationship Between Urban High-Rise Residential Areas and the Animalistic Diminishment and Tics in Children from a Pro-Nature Perspective

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Abstract: “Man is directly a natural being” and nature is the natural premise and foundation for human existence. The pro-nature perspective emphasizes the connection between children and the natural environment, and the effective use of natural environments can promote the comprehensive and healthy development of children. In modern society, the contradiction between humans and nature is intensifying, and the survival environment of children is increasingly threatened. This paper, from a pro-nature perspective, delves into the relationship between urban high-rise residential areas and the animalistic diminishment and tics in children, aiming to promote the construction of an ecological civilization city, achieve the comprehensive development of children, and deepen children’s understanding and respect for the natural environment.

Keywords: Pro-nature; High-rise residences; Children; Tics

Online publication: January 23, 2025

1. Introduction

With the acceleration of urbanization in China, an increasing population is gathering in cities, leading to a significant increase in high-rise buildings and a growing number of children living in high-rise residences. Consequently, the adverse effects on children’s health have become more apparent. The reduction of outdoor activities directly leads to animalistic diminishment in children, which in turn triggers the emergence of childhood tics. These issues must be taken very seriously.

2. Pro-nature is a necessity for the comprehensive development of children

Humans are first and foremost natural beings, and the earliest and most fundamental needs are animalistic survival needs or physiological needs of the body ^[1]. Allowing children to enter the natural world can cultivate their emotional connection with their living environment. Through contact with nature, children can gain various authentic experiences. These valuable firsthand, exploratory, and observational experiences not only provide children with spiritual nourishment of beauty but are also very beneficial for the formation of their sound personalities.

Various interesting activities conducted in nature not only bring joy to children but also strengthen their physical bodies, stimulate their imagination, and enhance their hands-on abilities. Research indicates that a 20-minute walk in nature is more beneficial for cultivating children's attention than walking on noisy streets. Some group games can also improve children's social skills, foster their team spirit, exercise their brains, and make them smarter.

Being close to nature highlights the natural qualities in children's growth process, which is also a gesture of respecting life and releasing spirituality. Nowadays, many children are under various pressures during their growth process. Allowing them to be close to nature can greatly reduce their stress and alleviate their anxiety. Undoubtedly, nature is also a vivid classroom for children to acquire knowledge, where they can recognize the infinitely wonderful diverse world. Learning from nature can cultivate children's desire to think and explore, gain various knowledge reserves, and help their future development, laying a solid foundation for their growth.

3. High-rise residences become a barrier between children's growth and nature

According to China's General Principles for Civil Building Design, residential buildings are categorized by their number of floors as follows: one to three floors are considered low-rise residences, four to six floors are multi-story residences, seven to nine floors are mid-high-rise residences, and ten floors or more are classified as high-rise residences. Professor Yin Zhi from the School of Architecture at Tsinghua University stated that the large-scale construction of high-rise residences in China began after the reform and opening up, especially after the implementation of land and housing sales on a paid basis. The peak of high-rise residential construction started around the late 1980s, primarily due to technological advancements and the severe housing shortage at the time.

It is undeniable that the towering buildings that rise in cities have become a barrier for children to access nature. Many high-rise residences are enclosed or semi-enclosed, leading to an increase in the time children spend indoors. Due to limitations in ventilation, this can result in the retention and accumulation of indoor radioactive pollutants. Studies by foreign scholars have shown that children living in high-rise residences for extended periods are more likely to develop various negative personality traits compared to children living in bungalows who have more contact with nature. The higher the building, the more severe this situation becomes ^[2].

Physical health is the foundation of children's growth. The rapid urbanization has already brought adverse effects on children's health due to the changes in residences. The lack of outdoor public spaces and community environments has led to a decrease in children's outdoor activities. Currently, domestic high-rise residential communities generally lack naturalized, child-scale experiential facilities. Building a more authentic and wild city, bridging the gap between children and nature, reestablishing the connection between children and nature, and providing children with more natural public spaces has become an urgent issue to be addressed in urban construction ^[3].

4. Distance from nature leads to animalistic diminishment in children

From a physiological perspective, children retain various “animalistic” instincts and qualities, which are clearly manifested in their daily behaviors and participation in games. A wealth of anthropological and zoological research indicates that the learning method shared by children and small animals is play. Before the advent of written language, education and the transmission of various knowledge and experiences to children could be conducted through play ^[4]. It is evident that allowing children to have ample time and space to engage in nature-oriented games and activities is beneficial for maintaining their animalistic characteristics.

It is important to be vigilant that children confined to high-rise residences become overly reliant on electronic products, spend long periods sitting, stay away from natural environments, reduce social interactions, and gradually lose their innate desire to move, which in turn manifests as a weakening of their animalistic traits. Survey data indicates that children living in high-rise residences lag significantly behind those in low-rise areas in terms of height and lung capacity. Through family factor investigations, it has been found that the main reason for the developmental lag in children living in high-rise residences is the lack of outdoor nature-oriented activities and physical exercise ^[5].

The relationship between humans and nature is one of the most fundamental issues in the world. Allowing children to live a pro-nature life and retain necessary animalistic characteristics plays a positive role in correctly addressing the increasingly severe ecological problems facing humanity. The objective natural world is continuously developing, and human cognitive activities must keep pace with the progress of the times. While economic development is emphasized, it is essential to pay attention to the object relationship of mutual affirmation between humans and nature, which is unchanging. While people stress the importance of human transformation of nature, they must also recognize that nature will have a counter-effect on humans. Allowing children to retain necessary animalistic characteristics in a pro-nature life is precisely for achieving harmonious development between humans and nature and the comprehensive development of children.

5. Insufficient exercise becomes a trigger for childhood tics

The sense of enclosure in high-rise residences can bring a sense of loneliness to the children living in them. Research indicates that children who live for extended periods in high-rise residences may develop an involuntary hostility towards themselves and the world, and their intellectual development can also be somewhat hindered. High-rise residences are also an undeniable trigger for children’s diseases ^[6]. Currently, the number of children in China suffering from tics is on the rise, with approximately 1.8 to 3.96 million children troubled by this condition, and about 360,000 new cases each year, a number that continues to increase annually. Tics are a common psychiatric disorder in children, with a variety of causes and locations of onset. A poor living environment is one of the key driving forces behind children developing tics ^[7]. Encouraging children to engage in appropriate nature-oriented activities can relax their minds and bodies, strengthen their physical constitution, and greatly aid in the prevention and treatment of childhood tics. Studies have shown that outdoor activities and group games are effective ways to combat childhood tics. Children living long-term in high-rise residences, surrounded by electronic products, are not only negatively impacted by their vision but also predisposed to developing tics. Outdoor nature-oriented activities can divert children’s attention, thereby reducing tic symptoms. Group activities can also boost children’s confidence and happiness, as a positive mood is the best weapon against tics. Stress can exacerbate the symptoms of tic patients, and nature is the best stress-relieving environment. Being close to nature

undoubtedly reduces the symptoms of childhood tics.

A professor from the University of Tokyo has concluded from long-term observation that living in high-rise residences is detrimental to the growth and development of children^[8]. According to a report released by the World Health Organization (WHO), the proportion of Chinese children and adolescents who are physically inactive ranges from 80% to 89%. The situation is even more severe for children living in high-rise residences, which has become a contributing factor to the development of tics in some children. Childhood tics often manifest as recurrent, non-rhythmic, involuntary movements, such as frequent blinking, eye squinting, involuntary head shaking, leg shaking, and so on, accompanied by involuntary vocalizations and changes in behavior. In severe cases, there may be sleep disturbances, obsessive-compulsive symptoms, and tendencies toward self-harm or self-injury^[9]. Therefore, all sectors of society must pay attention to the harm that physical inactivity can cause to children's health.

6. Recommendations and prospects

Ecological cities, as a new urban development concept, primarily aim for harmonious coexistence between humans and nature, using ecological protection and development as means, and advocating for the adherence to natural laws in urban construction^[10]. With the increasing number of high-rise residences in cities, it is necessary to conduct more research on the relationship between high-rise residences and children's health, providing references for the development of ecological cities. Parents living in high-rise residences should encourage their children to participate in nature-oriented activities by going outside, improving children's physical fitness, and combating the occurrence of various diseases. Children are the future of the city, so the construction of modern cities should not come at the expense of children's health. Overall, there are still many deficiencies in China's research on children's living spaces, with a lack of research data, which all require continuous attention and further in-depth exploration by relevant individuals.

Disclosure statement

The author declares no conflict of interest.

References

- [1] Bai XY, 2015, Constructing China's Ecological Civilization from the Perspective of "Humanized Nature". *Talent Wisdom*, 2015(23): 294–295.
- [2] Wu LQ, 2003, Beware of Urban Children's "Green Deficiency Syndrome". *Education Guide*, 2003(8): 101–102.
- [3] Ren YD, Wu XL, 2017, Strategic Suggestions for Building Healthy Cities from a Child-friendly Perspective. *Shanghai Urban Planning*, 2017(3): 24–29.
- [4] Wang XY, 2003, On the Connection and Difference Between Children's Play and Animal Play. *Education Guide*, 2003(12): 4–10.
- [5] Zhang YX, Yin JG, 1999, The Impact of High-Rise Residences on Children's Growth and Development. *Modern Preventive Medicine*, 1999(3): 347–348.
- [6] Fan XY, Lai SR, Su L, 2011, A Survey on Several Health Behaviors of Primary School Students in High-Rise Residences. *Strait Health*, 2011(5): 20–21.

- [7] Han RZ, Zhu XX, Dong X, 2024, Current Status of Research on Pediatric Tic Disorders. *Jilin Medical Journal*, 2024(9): 2212–2214.
- [8] Wang XD, 1995, The Adverse Effects of High-Rise Residences on Children. *Kindergarten Education*, 1995(1): 36–37.
- [9] Yang KR, Shu R, 2013, Experience in the Diagnosis and Treatment of Pediatric Tic Disorders. *Practical Traditional Chinese Medicine*, 2013(6): 483.
- [10] Wang LQ, 2024, Strategies for Creating Ecological City Wetland Landscapes under the Sponge City Concept. *Flowers*, 2024(4): 100–102.

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