

# Construction and Practice of an Infant and Toddler Behavior Observation Model Based on Health Management Orientation

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**Abstract:** Infancy and toddlerhood are critical stages of human growth and development. The physical and mental health status during this period not only affects children's current quality of life but also exerts a lasting impact on their lifelong health literacy and developmental potential. The infant and toddler behavior observation model guided by health management can effectively break through the limitations of the traditional single-disease monitoring model. With infant and toddler behavioral manifestations as the core carrier, it realizes dynamic monitoring of their physical, psychological and other health conditions through a scientific and systematic observation system. In view of this, this paper analyzes the construction of an infant and toddler behavior observation model based on health management orientation and puts forward effective implementation strategies.

**Keywords:** Health management; Infants and toddlers; Behavior observation; Model construction; Practice

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## 1. Core significance of constructing an infant and toddler behavior observation model based on health management orientation

### 1.1. Meeting the inherent needs of infants and toddlers' healthy development and laying a solid foundation for lifelong health

Infancy and toddlerhood (0–3 years old) is a crucial period for the development of bodily organs and the improvement of the immune system. If health risks during this stage are not detected and addressed early, they are likely to cause irreversible impacts on an individual's subsequent growth and development. The behavior observation model guided by health management abandons the traditional thinking of "emphasizing treatment over prevention". It focuses on the daily behavioral changes of infants and toddlers, and captures health risk signals on time through continuous tracking and observation, thus better realizing the goal of "early detection, early assessment and early intervention"<sup>[1]</sup>. This behavior-oriented health management method is more in line with the physiological characteristics of infants and toddlers, can avoid health risks from the source, and

imperceptibly build an all-around health protection network for them. In addition, this model emphasizes the dynamic monitoring and whole-process management of infants' and toddlers' health status. Practitioners can not only pay attention to the current behavioral abnormalities of infants and toddlers, but also find out the factors affecting their health by analyzing their behaviors, to formulate a more personalized health intervention plan combined with their age characteristics, growth and development laws and individual differences<sup>[2]</sup>.

### **1.2. Solving the current dilemmas of infant and toddler health management and improving the professional level of services**

With the adjustment of China's fertility policies and the improvement of family health awareness, the demand for infant and toddler health services has become increasingly diversified. However, there are still many problems in the current infant and toddler health management work, especially obvious deficiencies in behavior observation and health correlation analysis. Traditional infant and toddler health management mainly focuses on regular physical examinations, which usually monitor physiological indicators such as height, weight and head circumference, but pay insufficient attention to the daily behavioral manifestations of infants and toddlers, making it difficult to fully and accurately reflect their overall health status<sup>[3]</sup>. Constructing an infant and toddler behavior observation model based on health management orientation can effectively make up for the shortcomings of traditional health management and help realize all-around monitoring of infants and toddlers' health status. At the same time, this model pays more attention to the collaborative linkage of multiple subjects, which is conducive to promoting information sharing and division of labor and cooperation between families and community health service centers, and solving the current dilemma of mismatched supply and demand of infant and toddler health management services<sup>[4]</sup>.

### **1.3. Enriching the theoretical system of infant and toddler health management and promoting the standardized development of the industry**

Currently, research in the field of infant and toddler health management in China mostly focuses on physical health monitoring, while the integrated research on behavior observation and health management is relatively weak, lacking systematic theoretical support. The infant and toddler behavior observation model guided by health management is usually supported by the theories of health management, infant developmental psychology and other disciplines, and integrates behavior observation with health management links such as health monitoring and risk assessment, which can better enrich the theoretical connotation of infant and toddler health management and construct a theoretical framework for "behavior-health" correlation analysis<sup>[5]</sup>. Moreover, the construction and practice of this model can provide a standardized behavior observation process for the infant and toddler health management industry, help guide the industry to transform from "experience-based service" to "scientific service", and thus further promote the standardized and professional development of the infant and toddler health management industry.

## **2. Current problems in the integration of infant and toddler behavior observation and health management**

### **2.1. Insufficient infiltration of health management concepts and deviated positioning of behavior observation**

At this stage, some infant and toddler health service institutions and parents still only regard behavior observation as a means of "problem identification", lacking the core health management concept of "prevention

first and whole-process intervention”, which leads to an obvious deviation in the positioning of behavior observation work. In the health management of infants and toddlers, some medical institutions and community health service centers still take physiological indicator monitoring as the core, and identify behavior observation as an auxiliary work, lacking continuous tracking and active observation of infants and toddlers’ daily behaviors, making it difficult to capture early health risk signals of infants and toddlers on time<sup>[6]</sup>. In addition, most parents do not attach enough importance to infant and toddler behavior observation and lack health management awareness. They simply attribute infants’ and toddlers’ behavioral manifestations to “personality problems” and ignore the potential health risks behind the behaviors. Furthermore, some health service practitioners and parents have an insufficient understanding of the integration of behavior observation and health management, making it difficult to establish a “behavior-health” correlation thinking and accurately analyze infants and toddlers’ health status through their behavioral manifestations. The results of behavior observation cannot effectively serve health management decision-making, and it is difficult to achieve the health management goal of “early detection and early intervention”<sup>[7]</sup>.

## **2.2. Imperfect observation index system and lack of scientificity and systematicness**

The index system is the core basis for behavior observation work, and its scientificity and systematicness will greatly affect the accuracy and practicality of observation results. At present, infant and toddler behavior observation in China lacks a unified index system, with problems such as fragmented indicators and poor pertinence. The existing observation indicators are mostly scattered in different health service scenarios, lacking systematic integration, and failing to cover the multi-dimensional health-related behaviors of infants and toddlers in terms of physiology and psychology, making it difficult to fully reflect their overall health status<sup>[8]</sup>. In addition, the existing observation indicators lack pertinence and hierarchy, and fail to fully consider the growth and development characteristics and individual differences of infants and toddlers at different age stages. There are significant differences in the behavioral manifestations and health needs of infants and toddlers at different age stages. Most of the current observation indicators are not designed in detail according to age stages, and a one-size-fits-all index system is usually adopted, which easily leads to the lack of accuracy and reference value of observation results<sup>[9]</sup>.

## **2.3. Inadequate professional competence of observation subjects and absence of multi-subject collaboration mechanism**

Infant and toddler behavior observation is a highly professional work. Behavior observation guided by health management requires the collaborative participation of multiple subjects such as families and communities to better form a joint work force. However, at present, there are obvious deficiencies in the professional competence of observation subjects and the collaboration mechanism in China’s infant and toddler behavior observation. The professional competence of many grass-roots health service practitioners needs to be improved, and some practitioners lack systematic training in infant and toddler behavior observation and knowledge reserves in health management, which makes it difficult for them to accurately identify abnormal behaviors of infants and toddlers and conduct scientific analysis and health correlation interpretation of observation results. As the core subjects of daily behavior observation of infants and toddlers, parents lack professional observation knowledge and skills. Many parents do not know how to scientifically observe the behavioral manifestations of infants and toddlers, nor can they distinguish between normal and abnormal behaviors, which makes it difficult for them to detect the health risks of infants and toddlers in a timely manner<sup>[10]</sup>.

### **3. Construction and practice strategies of an infant and toddler behavior observation model based on health management orientation**

#### **3.1. Strengthen conceptual guidance and clarify the health management positioning of behavior observation**

Concepts are the forerunners of actions. To construct a more reasonable and scientific infant and toddler behavior observation model guided by health management, it is necessary to strengthen the infiltration of health management concepts and continuously correct the positioning deviation of behavior observation, to better guide all subjects to establish a correct understanding. It is necessary to continuously strengthen the conceptual training and guidance for health service practitioners, actively carry out relevant special training and academic seminars, and organize medical staff of community health service centers and practitioners of early education institutions to systematically learn knowledge of health management theory, infant developmental psychology and other fields, to further strengthen their health management awareness of “prevention first”.

In addition, it is possible to guide practitioners in the childcare industry to change the traditional thinking mode of “emphasizing physiology over behavior”, help them establish a “behavior-health” correlation thinking, so that they can better integrate behavior observation into the whole process of infant and toddler health management, and realize early warning and precise intervention of infants and toddlers’ health risks through continuous and systematic observation<sup>[11]</sup>. Furthermore, it is necessary to strengthen health education and conceptual guidance for parents, popularize the importance of infant and toddler behavior observation to parents through community health lectures, parent classes and other ways, and correct some parents’ cognitive deviations about infant and toddler behaviors. For example, case analysis can be used to show parents the potential health risks behind common behavioral abnormalities, guide parents to pay attention to daily behavior observation, and gradually help them establish a health awareness of “early detection and early intervention”. At the same time, parents can be provided with a more easy-to-understand behavior observation guide and health popular science knowledge to help them establish a more scientific understanding of behavior observation and enable them to participate in infant and toddler health management more actively<sup>[12]</sup>.

#### **3.2. Construct a scientific and systematic observation index system and lay a solid foundation for health management**

A scientific and systematic observation index system is the core support for behavior observation work and the key to realizing precise health management. To this end, it is necessary to construct a “multi-dimensional, hierarchical and highly correlated” infant and toddler behavior observation index system combined with the growth and development characteristics of infants and toddlers at different age stages and health management goals, to ensure that the observation results can fully and accurately reflect the overall health status of infants and toddlers. In the process of constructing the observation index system, the principle of comprehensiveness should be followed. The index system should cover various aspects such as the physical and mental health of infants and toddlers, avoiding the limitations of single-dimensional indicators. In terms of content, an attempt can be made to construct a hierarchical infant and toddler behavior observation index system, which can be divided into core indicators and auxiliary indicators.

Core indicators are key behavioral indicators reflecting the health status of infants and toddlers, which have high correlation and early warning value and require focused monitoring by relevant personnel<sup>[13]</sup>. Auxiliary indicators are supplements to core indicators and are used for a comprehensive assessment of

infants and toddlers' health status. Moreover, it is necessary to ensure the dynamic optimization of observation indicators. The infant and toddler behavior observation index system is not static, so it is necessary to regularly optimize and adjust the index system according to the growth and development laws of infants and toddlers, health management needs and other factors to ensure the practicability of the indicators.

### **3.3. Strengthen subject empowerment and construct a multi-subject collaborative work pattern**

Infant and toddler behavior observation and health management require the collaborative participation of multiple subjects, such as families and communities. The core of the work is to improve the professional competence of all subjects and establish a more effective collaboration mechanism, to gradually form a joint work force. To this end, an analysis can be made of the insufficient professional competence of grassroots practitioners, and an empowerment system of “systematic training + regular supervision” can be constructed. Through carrying out systematic training on core content, such as the behavior observation index system and observation methods, high-quality hierarchical and classified training services can be provided for grassroots practitioners. In addition, it is necessary to continuously improve parents' ability to manage their behavior and health<sup>[14]</sup>. As the core subjects of daily behavior observation of infants and toddlers, their professional competence directly affects the quality and effectiveness of observation work. To this end, the “precision education + practical operation guidance” method can be adopted to further improve parents' behavior observation ability and health management literacy. Furthermore, an attempt can be made to establish a multi-subject collaborative work mechanism, which can better break the information barriers and work disconnection between families, communities and medical institutions, thus gradually constructing a trinity collaborative work pattern of “family-community-medical institution”.

### **3.4. Improve the guarantee mechanism and promote the long-term operation of the model**

A sound guarantee mechanism is an important support for the long-term implementation and continuous operation of the infant and toddler behavior observation model guided by health management<sup>[15]</sup>. It is necessary to take system construction as the foundation, resource guarantee as the basis and team building as the key, and construct a systematic guarantee system from multiple dimensions to lay a solid foundation for the standardized implementation and regular promotion of the model. At the system construction level, based on the relevant documents on the healthy development of infants and toddlers issued by government functional departments, the core contents such as the operation process, index standards and result application of infant and toddler behavior observation should be further refined and clarified, and unified and implementable implementation norms should be formulated to provide a clear basis for all regions and institutions to carry out relevant work and effectively avoid the randomness and non-standardization of work.

At the resource guarantee level, strengthen the dual support of funds and hardware, include the funds for infant and toddler behavior observation and health management into the special financial budgets at all levels, focus on guaranteeing the basic needs such as staffing and the purchase of observation tools for grass-roots community health service centers, maternal and child health care institutions and childcare institutions, equip intelligent observation equipment and data management systems on demand, and continuously optimize the working conditions at the grass-roots level; at the same time, actively encourage social capital to participate in the field of infant and toddler health services, make up for the shortage of public resource supply, enrich the forms of service supply, and construct a diversified resource guarantee pattern led by the government and

participated by society.

At the team building level, enrich the team of grass-roots infant and toddler health service personnel through various ways such as open recruitment, targeted training and on-the-job training, and focus on cultivating compound talents with professional capabilities such as infant and toddler behavior observation and health management; carry out regular special professional training, continuously improve the professional literacy and practical operation ability of practitioners, optimize the professional structure of the grass-roots team, and provide a solid talent support for the long-term operation of the model.

## Disclosure statement

The author declares no conflict of interest.

## References

- [1] Wen YJ, Long C, Cui HL, et al., 2024, Exploration of the Current Situation of Caregivers' Forced Feeding Behavior in Infants and Toddlers Based on Video Observation Method. *Chinese Journal of Women and Children Health*, 15(06): 30–38.
- [2] Wu WH, Huang XX, Li QC, et al., 2024, Observation on the Development and Outcome of Infants and Toddlers with Familial High-Risk Autism Spectrum Disorders After Family Social Behavior Intervention. *Journal of International Psychiatry*, 51(04): 1034–1040.
- [3] Zhao W, 2024, An Analysis of the Application of Behavior Checklist Method in Infant and Toddler Behavior Observation. *Journal of Liaoning Teachers College (Social Science Edition)*, (03): 112–114 + 117.
- [4] Jing CF, 2023, Guidance Strategies for Infant-Parent Games from the Perspective of Behavior Observation—A Case Study of Sensory Functional Games. *The Science Education Article Collects*, (17): 185–188.
- [5] Niu GY, 2023, Research on the Design of Intelligent Diapers for Infants and Toddlers Based on Dual-User Behavior Orientation, thesis, Hebei University of Technology.
- [6] Huang XM, 2023, Action Research on the Application of Task-Driven Teaching Method in the Infant Behavior Observation Course in Secondary Vocational Schools, thesis, Guangxi Normal University.
- [7] Liu LY, 2021, Discussion on Strategies for Early Education Teachers to Observe and Support Infant and Toddler Behaviors. *Journal of Yuzhang Normal University*, 36(03): 61–66.
- [8] Yun QP, Liu M, Zhao M, et al., 2021, A Qualitative Study on the Acquisition Process of Infant and Toddler Toothbrushing Behavior Based on Observational Learning Theory. *Chinese Journal of Health Education*, 37(05): 422–424 + 429.
- [9] Mi LC, Wei S, 2021, A Study on the Current Social Demand for the Major of Infant Development and Health Management in Higher Vocational Colleges. *Modern Communication*, (09): 91–93.
- [10] Jing CF, 2021, Curriculum Construction of Infant Behavior Observation and Evaluation in the Early Education Major of Higher Vocational Colleges: Based on the School-Kindergarten Cooperation Model. *Vocational Education (Mid-term)*, 20(01): 40–43.
- [11] Niu J, 2020, Research on the Interactive Design of Intelligent Dolls Under the Sensory Integration Experience of Infants and Toddlers, thesis, Xi'an University of Technology.
- [12] Tang J, 2017, Research on the Design of Constant Temperature Feeding Bottles for Infants and Toddlers Based on Dual-User Experience, thesis, Shandong University.

- [13] Liu S, Dong RJ, 2017, Pediatric Behavioral Audiometry (5). *Journal of Audiology and Speech Pathology*, 25(03): 331–332.
- [14] Quan HY, 2012, A Theoretical and Practical Study on the Development of Prosocial Behaviors in 3–6 Year Old Children Through Sports Activities, thesis, Liaoning Normal University.
- [15] Aihetnisha A, 2012, Clinical Observation on the Effect of Early Behavioral Exercise on the Intellectual Development of Infants and Toddlers. *Chinese Community Doctors (Medical Professional)*, 14(14): 393.

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