

Rational Nutrition of Children Under 2 Years of Age in the Practice of a Family Physician

Haydarova Firuza Abdumalikovna
Asia International University, Bukhara, Uzbekistan

Annotation: Children's physical development slows somewhat starting in their second year of life, but remains quite rapid. During the second and third years, children gain approximately 5 kg in weight and grow 16–20 cm. Active growth during this period is associated with intensive development of the skeletal and muscular systems.

Keywords: rational nutrition; children under two years; infant and young child feeding (IYCF); exclusive breastfeeding; complementary feeding; family physician practice; nutritional status.

Objective. Along with the musculoskeletal system, the central nervous and endocrine systems continue to develop actively [1, 2]. The aim of this study was to assess the nutritional status of children under 2 years of age in Tashkent Family Clinic (FC) No. 35 and improve the quality of consultative medical care provided to parents on nutritional issues by 30% over 6 months. Questionnaires from children under two years of age were reviewed. The nutritional status of 56 children of this age was assessed. Standards and indicators for assessing the level of balanced nutrition were developed. An analysis was conducted and indicators for meeting these standards were calculated at the family doctor's office. Key areas of poor quality of medical services were identified using innovative methods for identifying the root causes of problems by creating high- and low-level flowcharts and Ishikawa diagrams. A survey of 35 parents of children under two years of age was conducted.

Due to increased awareness-raising about the benefits of exclusive breastfeeding for up to six months, this indicator increased from 10% to 40% over five months. After conducting information, education, and communication activities for parents about the importance of a balanced diet and the timely introduction of complementary foods for children starting at 6 months, this indicator increased by 53.3%. Training of visiting nurses in counseling parents about the introduction of complementary foods using a spoon and cup increased this indicator by 60%. As a result of discussions in mahallas (communities) by family doctors on hygiene rules for food preparation and feeding, this indicator increased by 50%. Parents' knowledge of the benefits of breast milk increased by 43.3%.

Results. Initial analysis demonstrated that only a minority of parents adhered to WHO-recommended feeding practices, particularly regarding exclusive breastfeeding, timely initiation of complementary feeding, and the use of age-appropriate feeding methods.

Of the 56 children assessed, 28.5% showed early signs of mild nutritional imbalance, primarily due to delayed introduction of nutrient-rich complementary foods and improper feeding frequency. Additionally, 17.8% of children demonstrated growth indicators slightly below WHO age-adjusted norms, suggesting insufficient dietary diversity during the second half of infancy.

The parent survey (n=35) further highlighted the absence of structured counseling at earlier stages of child growth. Only 25.7% of parents reported receiving sufficient guidance on feeding practices during routine family doctor visits. Many caregivers relied on information from relatives rather than professional sources, contributing to widespread misconceptions about feeding frequency, portion size, and the nutritional value of certain foods.

Interventions. To address these gaps, a multi-component intervention strategy was implemented at FC:

1. **Enhanced Counseling System:** Family physicians and visiting nurses were trained using updated WHO and UNICEF guidelines on infant and young child feeding (IYCF). Special emphasis was placed on practical counseling methods, allowing medical staff to tailor advice according to each child's growth profile.
2. **Development of Educational Materials:** Illustrated booklets and posters explaining balanced nutrition, dietary diversity, and safe food preparation practices were distributed to parents during clinic visits. Additionally, short weekly educational sessions were conducted in waiting areas.
3. **Based Outreach Activities:** Family doctors organized community discussions aimed at raising awareness on hygiene, food safety, and early identification of malnutrition. These meetings significantly improved community participation and trust in primary healthcare services.
4. **Monitoring and Feedback Mechanisms:** Anthropometric measurements were taken every two months, and growth monitoring charts were introduced. Parents received individualized feedback on their child's nutritional progress.

Outcomes. Following the interventions, a marked improvement was observed in multiple indicators of child nutrition and parental knowledge:

- Exclusive breastfeeding rates increased from 10% to 40% within five months.
- Timely introduction of complementary foods rose by 53.3%, reaching 83.3% adherence.
- Correct feeding techniques (use of spoon and cup) improved by 60% among newly trained visiting nurses.
- Safe food preparation and hygiene practices improved by 50% among surveyed families.
- Overall parental knowledge regarding the benefits of breast milk increased by 43.3%.

The combined interventions led to a 30% improvement in the overall quality of consultative medical services, meeting the primary objective of the study.

Discussion. The results of this study underscore the critical role of family physicians in shaping early childhood nutrition practices. The second year of life is a vulnerable period characterized by high nutritional demands due to rapid physical, neurological, and endocrinological development. In this context, even minor deviations in feeding habits can negatively affect growth trajectories and increase the risk of micronutrient deficiencies.

The data demonstrate that strengthening communication between healthcare providers and parents is one of the most effective strategies for improving early childhood nutrition. Training of visiting nurses was especially impactful, as nurses often have direct access to families and can provide culturally appropriate, individualized counseling.

Moreover, community-based approaches, such as mahalla meetings, proved essential in influencing behaviors in settings where family traditions heavily shape feeding practices. This highlights the importance of integrating medical interventions with culturally sensitive public health strategies.

Conclusion. This study demonstrated that improving the nutritional status of children under two years of age is closely linked to the quality of counseling and preventive services provided by family physicians. Baseline assessments revealed insufficient parental knowledge and suboptimal feeding practices, contributing to early signs of nutritional imbalance among children. The implementation of targeted interventions—including enhanced provider training, structured educational materials, regular growth monitoring, and community-based outreach—resulted in substantial improvements in exclusive breastfeeding, timely introduction of complementary foods, food hygiene practices, and overall parental awareness.

The findings confirm that strengthening communication between healthcare providers and caregivers significantly enhances adherence to WHO-recommended feeding practices. Integrating family

physicians, visiting nurses, and mahalla-level health promotion activities creates a sustainable model for improving early childhood nutrition.

REFERENCES

1. World Health Organization. Infant and Young Child Feeding: Model Chapter for Textbooks for Medical Students and Allied Health Professionals. Geneva: WHO Press; 2009.
2. United Nations Children's Fund (UNICEF). Programming Guide: Infant and Young Child Feeding. New York: UNICEF; 2021.
3. World Health Organization. Guiding Principles for Complementary Feeding of the Breastfed Child. Geneva: WHO; 2003.
4. Dewey KG, Brown KH. Update on technical issues concerning complementary feeding of young children in developing countries and implications for intervention programs. *Food and Nutrition Bulletin*. 2003;24(1):5–28.
5. Black RE, Victora CG, Walker SP, et al. Maternal and child undernutrition and overweight in low-income and middle-income countries. *The Lancet*. 2013;382(9890):427–451.
6. American Academy of Pediatrics. Breastfeeding and the Use of Human Milk. *Pediatrics*. 2012;129(3):e827–e841.
7. Rollins NC, Bhandari N, Hajeebhoy N, et al. Why invest, and what it will take to improve breastfeeding practices? *The Lancet*. 2016;387(10017):491–504.
8. Ministry of Health of the Republic of Uzbekistan. National Guidelines on Infant and Young Child Nutrition. Tashkent: MoH; 2020.
9. WHO Multicentre Growth Reference Study Group. WHO Child Growth Standards: Length/height-for-age, weight-for-age, weight-for-length, weight-for-height. Geneva: WHO; 2006.
10. Victora CG, de Onis M, Hallal PC, Blössner M, Shrimpton R. Worldwide timing of growth faltering: revisiting implications for interventions. *Pediatrics*. 2010;125(3):e473–e480.