

# Epidemiological Status of Complementary Feeding and Breastfeeding in Children Aged Six Months to Two Years in Qazvin Province in 2023

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## ABSTRACT

**Introduction:** In the first two years of life, optimal nutrition is vital for infant survival and development. Breastfeeding within the first six months is recommended to meet infants' nutritional demands. Beyond six months, breast milk alone falls short in providing essential nutrients like protein and iron, necessitating complementary feeding. This study explores the initiation, continuation, and status of complementary feeding in Qazvin province, addressing the gap in knowledge and enhancing health outcomes.

**Methods and Materials:** This cross-sectional study, conducted in six cities within Qazvin province in 2023, involved children aged 6 months to 2 years, selected based on urban-rural ratios. Selection was based on clustering using a sample size in each city. The questionnaire's reliability was established with a Cronbach's alpha above 0.8 and validity through health workers' assessment in Qazvin health centers, comprised of three sections: child demographics, parental information, and feeding practices. Inclusion criteria were children aged 6 months to 2 years with a family file in the SIB system. The exclusion criteria were age under 6 months, hospitalization, genetic defects, incomplete questionnaires, and maternal non-consent. Data analysis was performed using SPSS 22, with demographic variables expressed as mean, standard deviation, and percentage. Chi-square tests examined the relationship between demographics and exclusive nutrition.

**Results:** We examined 1733 children aged 6-24 months, 51.6% male. Parental demographics showed 98.5% of guardians as male, with 99.6% of parents married. Most mothers (93.2%) were housewives, while most fathers (77.6%) were self-employed. The majority of participants resided in urban areas (68.6%). Baseline characteristics included an average age of  $13.37 \pm 4.81$  months for children, with birth metrics of  $3205.81 \pm 466.15$  grams for weight,  $49.63 \pm 2.69$  cm for height, and  $34.58 \pm 1.8$  cm for head circumference. Current measurements averaged  $9.73 \pm 1.65$  kg for weight and  $76.83 \pm 6.48$  cm for height. Mothers' and fathers' average ages were  $29.95 \pm 6.14$  and  $34.75 \pm 5.65$  years, respectively. Dietary intake analysis revealed an average of 2.43 times daily and 1.6 times yogurt consumption daily. Sixty-eight children did not receive breastfeeding, primarily due to insufficient milk supply (63.2%), maternal (19.1%), or child illness (17.6%). Statistical analysis showed a significant correlation ( $p = 0.05$ ) between breastfeeding patterns and urban residency or the mother's employment status, consistent with the study's objectives.

**Conclusion and Discussion:** This study's findings on breastfeeding and complementary feeding in Qazvin align with global patterns yet reveal unique regional practices. Despite limitations like self-reported data, results suggest a high prevalence of breastfeeding influenced by urbanization and maternal employment. Comparative analysis underscores the impact of socio-cultural factors on feeding practices. Future initiatives should focus on education and support for breastfeeding, considering local demographics to enhance child nutrition and maternal empowerment in Qazvin and similar regions.

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