# Matern Child Nutr | 6-36 个月婴幼儿咀嚼喂食发生率及其与健康的关系

本文关键字：婴幼儿、咀嚼喂食、辅食添加、横断面研究

影响因子：3.233

建议阅读时间：2 分钟

**背景**

人们认为，咀嚼喂食是为婴儿引入植物类补充食物过程中的适应性行为。但是，由于唾液可能会传播疾病，人们对其产生争议。

**目的**

探讨喂养人的咀嚼喂食行为与婴幼儿健康及行为是否具有相关性。

**方法**

在中国 8 大城市招募了 1341 对婴幼儿及其喂养人。采用问卷调查方法收集了有关社会人口特征、喂养行为及自我报告健康状况的数据。同时，进行了人体测量，并采集了血液样本进行血红蛋白水平分析。

**结果**

咀嚼喂食的总发生率为 26.9%，在 8 个城市中的发生率为 14-43%不等。咀嚼喂食与疾病的发病率、年龄别身高 Z 评分、年龄别体重 Z 评分、身高别体重 Z 评分、头围 Z 评分及血红蛋白的营养指标之间并没有显著相关性（P 均>0.05）。由父母喂养（P=0.005）、母亲文化程度较低（P<0.001）、受到父母更多关注（P=0.002）及喂养人担心子女出现肥胖问题（P=0.001）的婴儿，咀嚼喂食发生率高。

**结论：**

咀嚼喂食与婴幼儿挑食行为不具有相关性。咀嚼喂养是中国比较常见的一种喂养方法，需要进行更多的研究来确定咀嚼喂养的生物学、经济及文化方面的益处或危害。

参考文献：Zhao A,et al. Matern Child Nutr. 2018 Jan;14(1).

文献链接：https://www.ncbi.nlm.nih.gov/pubmed/28382711

**TABLE 1** Univariable analysis of sociodemographic characteristics of infants and toddlers with or without premastication, N(%) or mean ± *SD*

| Variables | | Premastication | | *P* |
|---|---|---|---|---|
| | | No | Yes | |
| Age | 6–12.0 m | 290(69.0) | 130(31.0) | <.001 |
| | 12.1–24 m | 320(68.1) | 150(31.9) | |
| | 24.1–36 m | 369(82.0) | 81(18.0) | |
| Gender | Boys | 553(72.2) | 205(27.8) | .433 |
| | Girls | 447(74.1) | 156(25.9) | |
| City | Beijing | 145(81.0) | 9.4(19.0) | <.001 |
| | Suzhou | 112(64.0) | 63(36.0) | |
| | Guangzhou | 127(75.1) | 42(24.9) | |
| | Zhengzhou | 121(77.1) | 36(22.9) | |
| | Chengdu | 153(86.4) | 24(13.6) | |
| | Lanzhou | 106(63.9) | 60(36.1) | |
| | Shenyang | 122(79.2) | 32(20.8) | |
| | Shanghai | 94(57.3) | 70(42.7) | |
| Mode of delivery | Vaginal delivery | 449(71.8) | 176(28.2) | .262 |
| | Caesarean section | 522(74.6) | 178(25.4) | |
| Birth weight[a] | (kg) | 3.38 ± 0.53 | 3.40 ± 0.63 | .517 |
| Maternal education | Senior high school or under | 388(66.6) | 195(33.4) | <.001 |
| | Bachelor | 488(77.1) | 145(22.9) | |
| | Postgraduate or above | 104(83.2) | 21(16.8) | |
| Family capita | | | | |
| Monthly income | <3,000rmb | 461(72.1) | 178(27.9) | .459 |
| | 3,000–6,000rmb | 290(75.3) | 95(24.7) | |
| | >6,000rmb | 223(71.7) | 88(28.3) | |
| Monthly expenditure on children | <500rmb | 164(81.6) | 317(18.4) | <.001 |
| | 500–1,000rmb | 579(74.7) | 196(25.3) | |
| | >1,000rmb | 237(64.9) | 128(35.1) | |
| Maternal height[a] | (cm) | 160.9 ± 8.8 | 161.3 ± 4.9 | .446 |
| Maternal BMI[a] | | 21.0 ± 3.2 | 21.0 ± 3.8 | .856 |

*Note*. SD = standard deviation.

[a]The birth weight, maternal height, and maternal BMI were continuous variables, and they were analyzed with independent *t* test; the other variables were analyzed with chi-square analysis.

**TABLE 2** Univariable comparison of health indicators of HAZ, WAZ, WHZ, and HCZ score between children with and without premastication

| Nutritional indicators | Premastication | | *P* |
|---|---|---|---|
| | No | Yes | |
| Hemoglobin(g/L)[a] | N = 980 | N = 361 | |
| | 126(119,132) | 125(118,132) | .217 |
| | N = 975 | N = 359 | |
| HAZ | 0.23 ± 1.59 | 0.35 ± 1.47 | .226 |
| WAZ[a] | 0.57(0.00,1.34) | 0.69(0.00,1.38) | .281 |
| WHZ[a] | 0.73(0.00,1.47) | 0.72(0.00,1.43) | .826 |
| HCZ score | 0.19 ± 1.42 | 0.18 ± 1.43 | .881 |

*Note*. HAZ = height-for-age Z; HCZ = head circumference Z; WAZ = weight-for-age Z; WHZ = weight-for-height Z.

[a]Kolmogorov-Smirnov was used to test normality prior to analysis, and non-normal distribution were found for hemoglobin, WAZ, and WHZ. Hemoglobin, WAZ, and WHZ were described as median (25th, 75th) and analyzed with a nonparametric test. Other variables were presented as mean ± *SD* and analyzed with an independent *t* test.

**TABLE 3** Linear regression for premasitication of hemoglobin, HAZ, WAZ, WHZ, and HCZ among Chinese children (N = 1341)

| Predictors | Unstandardized coefficient | 95% (CI) | *t* | *P* |
|---|---|---|---|---|
| Hemoglobin | | | | |
| Model 1[a] | −0.995 | (−2.856,0.866) | −1.048 | .295 |
| Model 2[b] | −0.539 | (−2.389,1.311) | −0.571 | .569 |
| HAZ | | | | |
| Model 1[a] | 0.117 | (−0.072,0.306) | 1.212 | .226 |
| Model 2[b] | 0.150 | (−0.040,0.340) | 1.545 | .123 |
| WAZ | | | | |
| Model 1[a] | 0.039 | (−0.096,0.175) | 0.566 | .572 |
| Model 2[b] | 0.039 | (−0.098,0.176) | 0.557 | .577 |
| WHZ | | | | |
| Model 1[a] | −0.029 | (−0.167,0.108) | −0.420 | .675 |
| Model 2[b] | −0.051 | (−0.190,0.089) | −0.713 | .476 |
| HCZ | | | | |
| Model 1[a] | −0.013 | (−0.186,0.159) | −0.149 | .881 |
| Model 2[b] | −0.067 | (−2.389,1.311) | −0.571 | .569 |

*Note*. CI = confidence interval; HAZ = height-for-age Z; HCZ = head circumference Z; WAZ = weight-for-age Z; WHZ = weight-for-height Z.

[a]Model 1 used to obtain the crude odds ratio.

[b]Model 2 used to adjust for maternal education level, geographic location, and monthly expenditure on children.

**TABLE 4** Univariable comparison of illness occurrences between urban Chinese children with and without premastication, N(%)

| Variables | | Premastication | | P |
|---|---|---|---|---|
| | | No | Yes | |
| Illness after birth | <3 times | 572(71.7) | 226(28.3) | .161 |
| | ≥3 times | 408(75.1) | 135(24.9) | |
| Illness in recent 2 weeks | None | 555(74.8) | 187(25.2) | .114 |
| | Yes | 425(71.0) | 174(48.2) | |

**TABLE 5** Binary logistic regression for illness occurrences of premastication in Chinese urban children (N = 1,341)

| Variables[a] | B | Wald | OR | 95% (CI) | P |
|---|---|---|---|---|---|
| Illness occurrences after birth | −0.057 | 0.182 | 0.944 | (0.727,1.228) | .669 |
| Illness occurrences in recent 2 weeks | −0.218 | 1.839 | 0.804 | (0.587,1.102) | .175 |

*Note*. CI = confidence interval; OR = odds ratio.

[a]Adjusted with age, maternal education, geographic location, and monthly expenditure on children.

**TABLE 6** Comparison of parental feeding cognition and feeding behaviors between children with and without premastication, N(%)

| | | Premastication | | P |
|---|---|---|---|---|
| | | No | Yes | |
| The primary caregivers | Parents | 565(70.0) | 242(30.0) | .005 |
| | Grandparents | 386(77.2) | 114(22.8) | |
| | Nurse or others | 29(85.3) | 5(14.7) | |
| Health concern of children | No | 633(75.2) | 209(24.8) | .022 |
| | Yes | 345(69.4) | 152(30.6) | |
| Perception of child's weight | | | | |
| | Obesity | 53(59.6) | 36(40.4) | .001 |
| | Thin | 155(68.3) | 72(31.7) | |
| | Standard | 766(75.4) | 250(24.6) | |
| Picky eater | No | 745(76.0) | 274(26.9) | .972 |
| | Yes | 235(73.2) | 86(26.8) | |