Table S1. Distribution and statistical significance by guardians' knowledge, attitude, and behavioral variables for ECC among a sample of 3-5 years old children in China (n=1301).

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| --- | --- | --- | --- |
| Variables | CF (n, (%)) | ECC (n, (%)) | *P* |
| **Knowledge** |  |  |  |
| Q22a Is gum bleeding normal when brushing? |
| correct answer | 76 (33.8) | 149 (66.2) | 0.151 |
| wrong answer | 312 (34.6) | 590 (65.4) |
| do not know | 73 (42.0) | 101 (58.0) |
| Q22b Can bacteria cause inflammation of the gums? |
| correct answer | 372 (34.5) | 707 (65.5) | 0.281 |
| wrong answer | 23 (40.4) | 34 (59.6) |
| do not know | 66 (40.0) | 99 (60.0) |
| Q22c Can brushing teeth cause bleeding gums? |
| correct answer | 303 (35.3) | 555 (64.7) | 0.673 |
| wrong answer | 50 (32.9) | 102 (67.1) |
| do not know | 108 (37.1) | 183 (62.9) |
| Q22d Can bacteria cause dental caries? |
| correct answer | 328 (34.6)a | 619 (65.4)a | 0.026 |
| wrong answer | 28 (52.8)a | 25 (47.2)b |
| do not know | 105 (34.9)a | 196 (65.1)a |
| Q22e Does eating sugar cause dental caries? |
| correct answer | 371 (33.8)a | 727 (66.2)a | 0.013 |
| wrong answer | 32 (41.6)a,b | 45 (58.4) |
| do not know | 58 (46.0)b | 68 (54.0)b |
| Q22f Does decayed deciduous teeth need treatment? |
| correct answer | 333 (36.1) | 590 (63.9) | 0.606 |
| wrong answer | 50 (36.0) | 89 (64.0) |
| do not know | 78 (32.6) | 161 (67.4) |
| Q22g Can the pit and fissure sealing prevent dental caries? |
| correct answer | 60 (28.8)a | 148 (71.2)a | 0.030 |
| wrong answer | 29 (44.6)a | 36 (55.4)b |
| do not know | 372 (36.2)a | 656 (63.8)b |
| Q22h Can fluoride protect teeth? |
| correct answer | 118 (32.8) | 242 (67.2) | 0.251 |
| wrong answer | 29 (42.6) | 39 (57.4) |
| do not know | 314 (36.0) | 559 (64.0) |
| **Attitude** |
| Q21a\_group Is oral health important to your life? |
| correct answer | 453 (35.3) | 832 (64.7) | 0.220 |
| wrong answer | 8 (50) | 8 (50.0) |
| Q21b\_group Is regular oral examination necessary? |
| correct answer | 421 (34.8) | 790 (65.2) | 0.064 |
| wrong answer | 40 (44.4) | 50 (55.6) |
| Q21c\_group Is the quality of your teeth related to your own protection? |
| correct answer | 357 (33.6)a | 704 (66.4)a | 0.005 |
| wrong answer | 104 (43.3)b | 136 (56.7)b |
| Q21d\_group to prevent caries, you must first rely on yourself. |
| correct answer | 431 (34.9) | 804 (65.1) | 0.081 |
| wrong answer | 30 (45.5) | 36 (54.5) |
| Q21e\_group Is it important to protect child's first molar? |
| correct answer | 396 (35.1) | 731 (64.9) | 0.569 |
| wrong answer | 65 (37.4) | 109 (62.6) |
| Q21f\_group Does the mother's unhealthy teeth affect the child's teeth? |
| correct answer | 169 (36.3) | 297 (63.7) | 0.639 |
| wrong answer | 292 (35.0) | 543 (65.0) |
| **Practice** |
| Q3 Feeding method within 6 months of birth |
| complete breastfeeding | 256 (33.9)a | 499 (66.1)a | 0.005 |
| mainly breastfeeding | 88 (33.5)a | 175 (66.5)a |
| complete artificial feeding | 44 (55.0)b | 36 (45.0)b |
| mainly artificial feeding | 22 (39.3)a, b | 34 (60.7) |
| half breastfeeding and half artificial feeding | 51 (34.7)a | 96 (65.3)a |
| Q4a Frequency of eating sweet food |
| rare/never | 105 (41.5) | 148 (58.5) | 0.248 |
| 1-3 times/month | 60 (33.7) | 118 (66.3) |
| 1 time/week | 60 (36.4) | 105 (63.6) |
| 2-6 times/week | 111 (33.3) | 222 (66.7) |
| 1 time/day | 79 (35.7) | 142 (64.3) |
| ≥2 times/day | 46 (30.5) | 105 (69.5) |
| Q4b Frequency of eating sweet drinks |
| rare/never | 229 (36.7) | 395 (63.3) | 0.315 |
| 1-3 times/month | 86 (31.3) | 189 (68.7) |
| 1 time/week | 54 (40.3) | 80 (59.7) |
| 2-6 times/week | 48 (32.0) | 102 (68.0) |
| 1 time/day | 28 (41.2) | 40 (58.8) |
| ≥2 times/day | 16 (32.0) | 34 (68.0) |
| Q5 Frequency of eating sweet before going to bed at night |
| often | 27 (26.2)a | 76 (73.8)a | 0.002 |
| occasionally | 252 (33.2)a | 506 (66.8)a |
| never | 182 (41.4)b | 258 (58.6)b |
| Q6 Frequency of children brushing |
| every day | 244 (35.3) | 447 (64.7) | 0.921 |
| occasionally or never | 217 (35.6) | 393 (64.4) |
| Q7 Age at which to start brushing |
| < 1 year old | 10 (38.5)a,b | 16 (61.5)a,b | 0.033 |
| 2 years old | 73 (42.0)b | 101 (58.0)b |
| 3 years old | 127 (35.0)a,b | 236 (65.0)a,b |
| 4-5 years old | 31 (25.2)a | 92(74.8)a |
| do not remember | 3 (60.0)a,b | 2 (40.0)a,b |
| Q8 Brushing times per day |
| 2 times and above | 39 (28.9) | 96 (71.1) | 0.056 |
| 1 time | 148 (35.0) | 275 (65.0) |
| not daily brush | 57 (42.9) | 76 (57.1) |
| Q9 Frequency of helping child brushing |
| daily | 27 (31.0) | 60 (69.0) | 0.470 |
| weekly | 7 (58.3) | 5 (41.7) |
| sometimes | 58 (34.7) | 109 (56.3) |
| occasionally | 75 (35.5) | 136 (64.5) |
| never done | 77 (36.0) | 137 (64.0) |
| Q10 Whether to use toothpaste |
| Yes | 238 (34.8)a | 445 (65.2)a | 0.018 |
| No or do not know | 6 (75.0)b | 2 (25.0)b |
| Q11 Whether to use fluoride toothpaste |
| Yes | 12 (20.0)a | 48 (80.0)a | 0.016 |
| No | 52 (31.9)a, b | 111 (68.1) |
| do not know | 174 (37.8)b | 286 (62.2)b |
| Q12 Does your child have toothache or discomfort within the past 12 months? |
| Never | 411 (42.9)a | 547 (57.1)a | 0.000 |
| Sometimes | 31 (11.9)b | 230 (88.1)b |
| Often | 0 (0)b | 32 (100.0)b |
| Not clear | 19 (38.0)a | 31 (62.0)a |
| Q13 Has your child ever visited a dentist? |
| Yes | 47 (19)a | 200 (81.0)a | 0.000 |
| Never | 414 (39.3)b | 640 (60.7)b |

CF: caries-free group; ECC: Early Childhood Caries group.

a,b: The difference of caries prevalence between row variables, the same mark represents no difference between the two variables.

Statistical methods: [chi-square test](https://www.sciencedirect.com/topics/medicine-and-dentistry/chi-square-test)s, Fisher’s test and *z* tests for post hoc comparisons.