Supplementary file 2: Multilevel unadjusted Poisson regression analysis of incidence of proximal caries on primary teeth considering child and tooth variables

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| --- | --- | --- | --- |
|  Variables | **CARIES (YES/NO)** | **RR (95% CI)** | **P Value** |
| **No** | **Yes** |
| **N(%)** | **N(%)** |
| ***Tooth variables (n=3812 contacts)*** |
| **Type of contact** |  |  |  |  |
| O | 218(5.9) | 2(1.57) | 1 |  |
| I | 2778(75.4) | 83(65.4) | 3.2(0.8,12.9) | 0.106 |
| S | 562(15.2) | 40(31.5) | 7.3(1.8,30.2) | 0.006 |
| X | 127(3.45) | 2(1.6) | 1.7(0.2,12.1) | 0.597 |
| **Type of quadrant** |  |  |  |  |
| Right lower | 897(24.3) | 58(45.7) | 1 |  |
| Left upper | 919(25.0) | 30(23.6) | 0.5(0.3,0.8) | 0.004 |
| Left lower | 931(25.3) | 23(18.1) | 0.4(0.3,0.7) | <0.001 |
| Right upper | 938(25.4) | 16(12.6) | 0.3(0.2,0.5) | <0.001 |
| ***Child variables (3812 contacts-953 children)*** |
| **Gender** |  |  |  |  |
| Male | 1498(40.7) | 92(71.7) | 3.4(2.3,5.0) | <0.001 |
| Female | 2187(59.3) | 35(28.3) |  |  |
| **Bottel feeding habit** |  |  |  |  |
| Yes | 62(1.7) | 5(3.9) | 0.5(0.2,1.1) | 0.093 |
| No | 3619(98.2) | 122(96.1) | 5.4e-07(0,) | 0.995 |
| Don’t know | 4(0.1) | 0(0) |  |  |
| **Children who clean their teeth** |  |  |  |  |
| Yes | 3084(83.7) | 104(81.9) | 1.1(0.7,1.8) | 0.642 |
| No | 588(15.9) | 23(18.1) | 4.2e-07(0,) | 0.996 |
| Don’t know | 13(0.4) | 0(0) |  |  |
| **Mode of toothbrushing**  |  |  |  |  |
| Toothbrush | 3583(97.2) | 123(96.8) | 4.7(0.7,33.4) | 0.127 |
| Others | 15(0.4) | 1(0.8) | 1.1(0.3,3.4) | 0.916 |
| Don’t know | 87(2.4) | 3(2.4) |  |  |
| **Parental supervision while tooth toothbrushing** |  |  |  |  |
| Sometimes child, sometimes parent | 2012(54.6) | 57(44.9) | 0.9(0.5,1.5) | 0.611 |
| Parent alone  | 577(15.6) | 14(11) | 1.8(1.2,2.5) | 0.003 |
| Child alone | 1096(29.8) | 56(44.1) |  |  |
| **Age when started brushing** |  |  |  |  |
| < 18 months | 697(18.9) | 33(26) | 0.7(0.5,1.0) | 0.051 |
| > 18 months | 2667(72.4) | 85(66.9) | 0.6(0.3,1.3) | 0.207 |
| Don’t know | 321(8.7) | 9(7.1) |  |  |
| **Use of toothpaste** |  |  |  |  |
| Yes | 3063(83.1) | 93(72.2) | 1 |  |
| No | 547(14.9) | 32(24.4) | 1.8(1.2,2.8) | 0.004 |
| Don’t know | 75(2) | 2(1.6) | 1.6(0.6,4.4) | 0.351 |
| **Frequency of toothbrushing** |  |  |  |  |
| Every meal | 611(16.6) | 9(7.1) | 1 |  |
| Twice daily | 471(12.8) | 18(14.2) | 2.5(1.1,5.6) | 0.023 |
| Once | 2468(67.0) | 93(73.2) | 2.5(1.3,5.0 | 0.008 |
| Occasionally | 85(2.3) | 5(3.9) | 4.2(1.4,12.4) | 0.011 |
| Never | 32(0.8) | 2(1.6) | 4.3(0.9,19.7) | 0.064 |
| Don’t know | 18(0.5) | 0(0) | 8.5e-07(0,) | 0.995 |
| **Frequency of mouth rinse** |  |  |  |  |
| Every meal | 280(7.6) | 13(9.4) | 1 |  |
| Twice daily | 168(4.5) | 6(4.7) | 0.9(0.3,2.3) | 0.796 |
| Once | 997(27.1) | 28(21.3) | 0.7(0.3,1.3) | 0.225 |
| Occasionally | 324(8.8) | 19(15) | 1.4(0.7,2.8) | 0.409 |
| Never | 1414(38.4) | 49(38.6) | 0.8(0.5,1.6) | 0.588 |
| Don’t know | 499(13.5) | 15(11) | 0.7(0.3,1.5) | 0.331 |
| **Use of dental floss** |  |  |  |  |
| Every meal | 22(0.6) | 1(0.8) | 1 |  |
| Twice daily | 61(1.7) | 3(2.4) | 1.0(0.1,9.7) | 0.992 |
| Once | 837(22.6) | 21(16.5) | 0.5(0.1,3.8) | 0.503 |
| Occasionally | 91(2.5) | 6(4.7) | 1.4(0.2,11.6) | 0.756 |
| Never | 1907(51.7) | 65(51.2) | 0.7(0.1,5.0) | 0.712 |
| Don’t know | 767(20.9) | 31(24.4) | 0.8(0.1,5.9) | 0.836 |
| **Previous dental visit** |  |  |  |  |
| Last 6 months | 54(1.5) | 2(1.6) | 1 |  |
| 6 months-1 year | 213(5.8) | 3(2.4) | 0.4(0.1,2.5) | 0.335 |
| 1-5 years | 339(9.2) | 20(15.7) | 1.6(0.4,6.7) | 0.543 |
| >5 years | 97(2.6) | 5(3.9) | 1.6(0.3,8.2) | 0.58 |
| Never | 2044(55.5) | 73(57.5) | 0.9(0.2,4.0) | 0.99 |
| Don’t remember | 819(22.2) | 19(15) | 0.7(0.2,2.8) | 0.564 |
| Did not answer | 119(3.2) | 5(3.9) | 1.2(0.2,6.0) | 0.859 |
| **Last professional fluoride application**  |  |  |  |  |
| Don’t remember | 25(0.6) | 2(1.6) | 1 |  |
| Never | 3205(87.0) | 107(84.3) | 0.4(0.1,1.6) | 0.193 |
| >5 years | 263(7.1) | 12(9.4) | 0.6(0.1,2.5) | 0.446 |
| 1-5 years | 126(3.4) | 5(3.9) | 0.5(0.1,2.3) | 0.345 |
| 6 months-1 year | 9(0.2) | 0(0) | 1.5e-07(0,) | 0.996 |
| Last 6 months | 57(1.5) | 1(0.8) | 0.2(0.02,2.54) | 0.231 |
| **Frequency of snacking per day** |  |  |  |  |
| Never | 9(0.2) | 0(0) | 1.96e-07(0,) | 0.997 |
| Occasionally | 378(10.3) | 15(11.8) | 1 |  |
| 1-2 times | 2865(77.8) | 93(73.2) | 0.8(0.5,1.4) | 0.487 |
| 3-4 times | 373(10.1) | 16(12.6) | 1.1(0.6,2.3) | 0.762 |
| 5 or >5 times | 49(1.3) | 3(2.4) | 1.5(0.4,5.3) | 0.5 |
| Don’t know | 11(0.3) | 0(0) | 1.97e-07(0,) | 0.997 |
| **Intake of sugary items** |  |  |  |  |
| Yes | 581(15.7) | 12(9.4) |  |  |
| No | 3101(84.2) | 115(90.6) | 1.8(1.0,3.2) | 0.064 |
| Don’t know | 3(0.1) | 0(0) | 2.5e-09(0,) |  |
| **Intake of non-sugary items** |  |  |  |  |
| Yes | 2998(81.4) | 110(86.6) | 1 |  |
| No | 684(18.5) | 17(13.4) | 0.7(0.4,1.2) | 0.16 |
| Don’t know | 3(0.1) | 0(0) | 1.6e-07(0,) |  |
| **Habit of brushing after snacking**  |  |  |  |  |
| Always | 192(5.2) | 8(6.3) | 1 |  |
| Occasionally | 2259(61.3) | 93(73.2) | 1.0(0.5,2.1) | 0.993 |
| Never | 716(19.4) | 20(15.7) | 0.7(0.3,1.5) | 0.35 |
| Don’t know | 518(14.1) | 6(4.7) | 0.3(0.1,0.8) | 0.021 |
| **Habit of sleeping directly after snacking**  |  |  |  |  |
| Always | 872(23.7) | 27(21.3) | 1 |  |
| Occasionally | 1873(50.8) | 64(50.4) | 1.1(0.7,1.7) | 0.735 |
| Never | 933(25.3) | 36(28.3) | 1.2(0.7,1.9) | 0.49 |
| Don’t know | 7(0.2) | 0(0) | 1.5e-06(0,) | 0.995 |
| **Fluoride toothpaste in caries prevention** |  |  |  |  |
| Completely agree | 813(22.1) | 29(22.8) | 1 |  |
| Agree | 759(20.6) | 31(24.4) | 1.2(0.7,1.9) | 0.528 |
| Disagree | 131(3.5) | 3(2.4) | 0.7(0.2,2.2) | 0.492 |
| Completely disagree | 1949(52.9) | 61(48) | 0.9(0.6,1.4) | 0.548 |
| Don’t know | 33(0.9) | 3(2.4) | 2.7(0.8,8.7) | 0.107 |
| **Role of snacking as a risk factor for caries** |  |  |  |  |
| Completely agree | 909(24.7) | 31(24.4) | 1 |  |
| Agree | 2341(63.5) | 76(59.8) | 0.9(0.6,1.4) | 0.791 |
| Disagree | 196(5.3) | 8(6.3) | 1.2(0.6,2.6) | 0.652 |
| Completely disagree | 225(6.1) | 12(9.4) | 1.5(0.8,2.9) | 0.248 |
| Don’t know | 14(0.4) | 0(0) | 1.7e-07(0,) | 0.997 |
| **Role of mouth rinsing after snacking in caries prevention**  |  |  |  |  |
| Completely agree | 698(18.9) | 26(20.5) | 1 |  |
| Agree | 2404(65.2) | 84(66.1) | 0.9(0.6,1.5) | 0.808 |
| Disagree | 96(2.6) | 4(3.1) | 1.1(0.4,3.2) | 0.822 |
| Completely disagree | 481(13.1) | 13(10.2) | 0.7(0.4,1.4) | 0.377 |
| Don’t know | 6(0.2) | 0(0) | 2.09e-07(0,) | 0.998 |
| **Socioeconomic status** |  |  |  |  |
| Upper lower | 1051(28.5) | 30(23.6) | 2.8(1.3,6.0) | 0.006 |
| Lower middle | 1749(47.5) | 88(69.3) | 4.5(2.3,9.0) | <0.001 |
| Upper middle | 885(24) | 9(7.1) | 1 |  |

CI: Confidence Interval; RR: Relative Risk