**Appendix 1.** Study characteristics and findings (n=42)

| Study | Year | Country | Age range | Subject | N | Caries Index(Mean±SD) |
| --- | --- | --- | --- | --- | --- | --- |
| Akpata, et al. 1 | 2012 | Kuwait | 12-15 yrs | IDDM | 53 | DMFT= 6.4 ± 4.7\*DFS= 7.3 ± 6.5 |
| Control | 53 | DMFT= 4.7 ± 3.3DFS= 5.6 ± 4.0 |
| Aljerf, et al. 2 | 2017 | Syria | 2-15 yrs | IDDM | 95 | DMFT= 5.46 ± 1.82\* |
| Control | 40 | DMFT= 0.99 ± 0.72 |
| Al-Khayoun, et al. 3 | 2013 | Iraq | 18-22 yrs | IDDM | 50 | DMFS= 27.96 ± 13.2\* |
| Control | 25 | DMFS= 11.96 ± 8.61 |
| Al-Rawi, et al. 4 | 2010 | Iraq | 11-13 yrs | IDDM | 30 | DMFS= 13.70 ± 5.95\*dmfs= 8.96 ± 5.12 |
| Control | 30 | DMFS= 7.27 ± 4.00dmfs= 5.94 ± 3.87 |
| Alves, et al. 5 | 2012 | Brazil | 6-18 yrs | IDDM | 51 | DMFT= 1.94 ± 2.84dmft= 0.64 ± 1.24 |
| Control | 51 | DMFT= 1.41 ± 2.34dmft= 1.27 ± 2.42 |
| Ambildhok, et al. 6 | 2018 | India | 6-17 yrs | IDDM | 100 | DMFT= 6.5 ± 5.8\*dmft= 3.66 ± 4.8\* |
| Control | 200 | DMFT= 2.4 ± 2.1dmft= 1.22 ± 1.09 |
| Aral, et al. 7 | 2016 | Turkey | 10-16 yrs | IDDM | 30 | DMFT= 0.78 ± 1.58 dmft= 3.28 ± 3.24\* |
| Control | 30 | DMFT= 1.8 ± 2.31dmft= 2.25 ± 3.18 |
| Arheiam, et al. 8 | 2014 | Libya | 10-15 yrs | IDDM | 70 | DMFT= 1.19 ± 1.74 |
| Control | 70 | DMFT= 0.80 ± 1.46 |
| Babu, et al. 9 | 2018 | India | 6-18 yrs | IDDM | 80 | DMFT= 1.26 ± 2.49 \*dmft= 0.44 ± 1.28 |
| Control | 80 | DMFT= 0.46 ± 1.02dmft= 0.88 ± 1.75 |
| Bassir, et al. 10 | 2014 | Iran | 7-17 yrs | IDDM | 31 | DMFT= 3.71 ± 2.48 |
| Control | 31 | DMFT= 4.35 ± 2.74 |
| Busato, et al. 11 | 2010 | Brazil | 14-19 yrs | IDDM | 51 | DMFT= 3.3 ± 3.7\* |
| Control | 51 | DMFT= 1.5 ± 2.1 |
| Busato, et al. 12 | 2016 | Brazil | 14-19 yrs | IDDM | 32 | DMFT= 4 ± 0.7\* |
| Control | 32 | DMFT= 1 ± 0.3 |
| El-Tekeya, et al. 13 | 2012 | Egypt | 6-9 yrs | IDDM | 50 | DMFS= 0.82 ± 1.58dfs=6.33±4.48  |
| Control | 50 | DMFS= 0.70 ± 1.26dfs=5.81±5.0 |
| Fazlić, et al. 14 | 2016 | Bosnia and Herzegovina | 12-18 yrs | IDDM | 60 | DMFT= 11.49 ± 3.10\* |
| Control | 30 | DMFT= 6.19 ± 2.54 |
| Ferizi, et al. 15 | 2018 | Kosovo | 10-15 yrs | IDDM | 80 | DMFT= 6.56 ± 3.56\* |
| Control | 80 | DMFT= 4.21 ± 2.63 |
| Geetha, et al. 16 | 2019 | India | 10-15 yrs | IDDM | 175 | DMFT= 0.7 ± 0.45dmft= 0.26 ± 0.05 |
| Control | 175 | DMFT= 1.75 ± 0.8\*dmft= 0.84 ± 0.2\* |
| Gokmenoglu, et al. 17 | 2017 | Turkey | NS | IDDM | 76 | DMFT= 5.75 ± 5.65 |
| Control | 76 | DMFT= 4.34 ± 2.91 |
| Gupta, et al. 18 | 2014 | India | 10-15 yrs | IDDM | 140 | DMFT= 2.09 ± 2.00\*DMFS= 2.25 ± 2.31dmft=0.59 ± 1.36dmfs= 0.6 ± 1.63 |
| Control | 140 | DMFT= 2.25 ± 1.64DMFS= 2.74 ± 2.11dmft= 0.77 ± 1.37dmfs= 1.15 ± 1.91\* |
| İşcan 19 | 2018 | Turkey | 6-13 yrs | IDDM | 50 | DMFT= 1.04 ± 1.5DMFS=1.34±2.20dmft= 3.97 ± 3.71dmfs=9.41±10.61 |
| Control | 50 | DMFT= 0.82 ± 1.26DMFS=1.34±2.26dmft= 4.85 ± 3.7dmfs=12.51±11.43 |
| Ismail, et al. 20 | 2017 | China | 4-17 yrs | IDDM | 32 | DMFT= 1.69 ± 1.75dmft= 1.09 ± 2.43 |
| Control | 32 | DMFT= 2.03 ± 1.75dmft= 1.38 ± 2.71 |
| Kamran, et al. 21 | 2019 | Iran | 9-14 yrs | IDDM | 100 | DMFT= 2.60 ± 1.25 |
| Control | 100 | DMFT= 2.52 ± 1.26 |
| Matsson, et al. 22 | 1975 | Sweden | 9-16 yrs | IDDM | 33 | DFS= 13.4 ± 1.6 |
| Control | 33 | DFS= 20.5 ± 2.6\* |
| Miko, et al. 23 | 2010 | Hungary | 14-19 yrs | IDDM | 259 | DMFT= 11.15 ± 4.2\* |
| Control | 259 | DMFT= 9.56 ± 5.15 |
| Miralles, et al. 24 | 2006 | Spain | 18-50 yrs | IDDM | 90 | DMFT= 7.41 ± 4.17\* |
| Control | 90 | DMFT= 5.63 ± 4.04 |
| Moore, et al. 25 | 2001 | USA | NS | IDDM | 390 | DMFS= 33.7 ± 1.2\*DFS= 21.7 ± 0.8\* |
| Control | 202 | DMFS= 26.2 ± 1.7DFS= 19.1 ± 1.2 |
| Neil, et al. 26 | 2009 | Sudan | 8-18 yrs | IDDM | 63 | DMFT= 0.09 ± 0.10 |
| Control | 63 | DMFT= 0.20 ± 0.15\* |
| Orbak, et al. 27 | 2008 | Turkey | 5-14 yrs | IDDM | 50 | DFS= 1.7 ± 2.1dfs= 0.6 ± 1.0 |
| Control | 50 | DFS= 5.5 ± 8.3\*dfs= 0.7 ± 1.1 |
| Patiño, et al. 28 | 2007 | Mexico | 8-30 yrs | IDDM | 70 | DMFT= 8.7 ± 5.35 |
| Control | 35 | DMFT= 6.3 ± 4.0 |
| Rafatjou, et al. 29 | 2016 | Iran | 5-18 yrs | IDDM | 73 | DMFT= 3.78 ± 3.24 |
| Control | 75 | DMFT= 3.08 ± 2.74 |
| Rafatjou, et al. 29 | 2016 | Iran | 5-12 yrs | IDDM | 28 | dmft= 2.52 ± 3.29 |
| Control | 33 | dmft= 5.36 ± 3.21\* |
| Ramli, et al. 30 | 2016 | Malaysia | NS | IDDM | 42 | DMFT= 14.52 ± 6.92\* |
| Control | 42 | DMFT= 9.4 ± 3.87 |
| Sadeghi, et al. 31 | 2017 | Iran | 6-12 yrs12-18 yrs | IDDM | 50 | DMFT= 2.1 ± 1.9\*(6-12 yrs)DMFT= 4 ± 2.8\*(12-18 yrs)dmft= 2.5 ± 2(6-12 yrs) |
| Control | 50 | DMFT= 1.04 ± 0.9(6-12 yrs)DMFT= 2.4 ± 1.9(12-18 yrs) dmft= 2.02 ± 1.7(6-12 yrs) |
| Shakra, et al. 32 | 2019 | Jordan | 4-15 yrs | IDDM | 60 | DMFT= 2.6 ± 3.3dmft= 2.5 ± 3.0 |
| Control | 60 | DMFT= 1.2 ± 1.8dmft= 3.6 ± 3.4 |
| Singh-Hüsgen, et al. 33 | 2016 | Germany | 3-18 yrs | IDDM | 100 | DMFS= 3.08 ± 11.38dmfs= 1.38 ± 5.33 |
| Control | 100 | DMFS= 2.57 ± 7.11dmfs= 3.86 ± 7.68\* |
| Siudikiene, et al. 34 | 2006 | Lithuania | 10-15 yrs | IDDM | 68 | DMFS= 23.03 ± 14.54\* |
| Control | 68 | DMFS= 27.43 ± 16.04 |
| Siudikiene, et al. 35(2-year follow-up cohort study) | 2008 | Lithuania | 10-15 yrs | IDDM | 63 | DMFS= 23.0 ± 15.0(Baseline)DMFS= 34.5 ± 16.6(follow-up) |
| Control | 63 | DMFS= 27.0 ± 16.0(Baseline)DMFS= 37.1 ± 15.1(follow-up) |
| Subramaniam, et al. 36 | 2015 | India | 12-16 yrs | IDDM | 30 | DMFT= 1.07 ± 2.43 |
| Control | 30 | DMFT= 0.50 ± 1.14 |
| Swanljung, et al. 37 | 1992 | Finland | 12-18 yrs | IDDM | 85 | DMFT= 4.3 ± 3.1DMFS= 5.8 ± 5.0 |
| Control | 85 | DMFT= 3.3 ± 2.7DMFS= 4.0 ± 3.9 |
| Tagelsir, et al. 38 | 2011 | Belgium | 3-16 yrs | IDDM | 44 | DMFT= 3.84 ± 3.89DMFS= 5.61 ± 5.97dmft= 2.86 ± 2.52dmfs= 3.89 ± 3.81 |
| Control | 41 | DMFT= 2.85 ± 3.98DMFS= 4.46 ± 2.11dmft= 3.51 ± 2.76dmfs= 7.03 ± 7.33 |
| Techera, et al. 39 | 2018 | Uruguay | 8-12 yrs | IDDM | 30 | DMFT= 1.23 ± 1.98 |
| Control | 56 | DMFT= 1.04 ± 1.84 |
| Tenovuo, et al. 40 | 1986 | Finland | 17-61 yrs | IDDM | 35 | DMFS= 37.9 ± 25.0 |
| Control | 35 | DMFS= 45.7 ±24.5 |
| Vaziri, et al. 41 | 2010 | Iran | 9-61 yrs | IDDM | 40 | DMFT= 10.16 ± 4.52\* |
| Control | 20 | DMFT= 8.26 ± 3.85 |
| Wyne, et al. 42 | 2016 | Saudi Arabia | 4-14 yrs | IDDM | 134 | DMFT= 3.19 ± 2.92\*dmft= 4.87 ± 3.97 |
| Control | 177 | DMFT= 2.32 ± 2.62dmft= 7.17 ± 4.74\* |

\* Statistically significant difference (P < .05)., SSFR: Stimulated Salivary Flow rate, USFR: Unstimulated Salivary Flow rate, NS: Not specified

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