**Table 1: Mean, standard deviation (S.D.) and t-tests between means of males and female for height, weight and BMI**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Age** | **Sex** | **N** | **Height** | | | **Weight** | | | **Body-Mass-Index** | | |
| **Mean** | **SD** | **t** | **Mean** | **SD** | **t** | **Mean** | **SD** | **t** |
| 14 | M | 18 | 155.32 | 8.49 | 2.59\* | 38.14 | 7.24 | 0.52 | 15.74 | 1.67 | -1.81 |
|  | F | 17 | 148.86 | 5.95 |  | 37.06 | 4.80 |  | 16.67 | 1.32 |  |
| 15 | M | 25 | 159.44 | 7.50 | 3.58\*\* | 41.02 | 6.87 | 0.35 | 16.09 | 1.92 | -2.86\*\* |
|  | F | 18 | 152.49 | 3.90 |  | 41.72 | 6.05 |  | 18.09 | 2.68 |  |
| 16 | M | 20 | 163.00 | 10.13 | 4.28\*\* | 43.67 | 6.68 | 0.67 | 16.34 | 1.03 | -4.04\*\* |
|  | F | 19 | 152.36 | 3.97 |  | 42.42 | 4.76 |  | 18.18 | 1.75 |  |
| 17 | M | 20 | 165.71 | 8.87 | 5.23\*\* | 46.03 | 3.82 | 2.74 | 16.88 | 1.64 | -2.25\* |
|  | F | 18 | 153.31 | 4.98 |  | 42.39 | 4.37 |  | 18.02 | 1.46 |  |
| 18 | M | 16 | 166.25 | 4.94 | 9.67\*\* | 50.50 | 2.40 | 3.74 | 18.25 | 2.40 | 0.88 |
|  | F | 15 | 151.82 | 4.60 |  | 43.40 | 4.38 |  | 18.84 | 1.81 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |

\*p<0.05, \*\*p<0.01

**Table 2: Prevalence of various dental pathological traits through adolescence: Age and Sex differences**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Pathological trait** | **Sex** | **Prevalence through various age groups** | | | | | |
| 14 yr | 15 yr | 16 yr | 17 yr | 18 yr | chi square |
| Caries | M | 16.67 | 24.00 | 20.00 | 40.00 | 19.05 | 12.11\* |
| F | 52.94 | 50.00 | 42.11 | 38.89 | 55.00 |
| Plaque | M | 83.33 | 92.00 | 90.00 | 95.00 | 90.48 | 23.67\* |
| F | 64.71 | 55.56 | 47.37 | 50.00 | 85.00 |
| Calculus (lingual)# | M | 44.44 | 28.00 | 40.00 | 65.00 | 19.05 | 20.84\* |
| F | 70.59 | 88.89 | 68.42 | 44.44 | 60.00 |

\*P< 0.05; # there was no case of buccal calculus**Table 3: Analysis of Variance of various oral health indicators with reference to age and sex**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Index** | **Sex** | **Mean Values in different age groups** | | | | | | | | | | |
| 14 yr | | 15 yr | | | 16 yr | | 17 yr | | 18 yr | |
| **A: Descriptive Statistics** | | | | | | | | | | | | |
| No. of subjects | M | 18 | | | 25 | | 20 | | | 20 | 21 | |
|  | F | 17 | | | 18 | | 19 | | | 18 | 20 | |
| Soft deposit | M | 0.89 | | | 0.72 | | 0.70 | | | 0.40 | 0.67 | |
|  | F | 0.88 | | | 0.67 | | 0.32 | | | 0.22 | 0.30 | |
| Plaque | M | 0.74 | | | 1.02 | | 0.66 | | | 0.66 | 0.47 | |
|  | F | 0.40 | | | 0.61 | | 0.36 | | | 0.43 | 0.51 | |
| Calculus | M | 0.35 | | | 0.58 | | 0.25 | | | 0.43 | 0.51 | |
|  | F | 0.34 | | | 0.34 | | 0.55 | | | 0.44 | 0.55 | |
| DMF Score | M | 0.17 | | | 0.48 | | 0.60 | | | 0.90 | 0.29 | |
|  | F | 0.77 | | | 1.06 | | 1.05 | | | 0.89 | 0.90 | |
| Gingivitis | M | 0.83 | | | 1.48 | | 1.70 | | | 1.20 | 1.33 | |
|  | F | 1.29 | | | 1.50 | | 1.63 | | | 1.33 | 1.40 | |
| Composite oral health index | M | 2.98 | | | 4.40 | | 4.33 | | | 3.78 | 3.41 | |
|  | F | 3.74 | | | 4.23 | | 4.06 | | | 3.43 | 3.81 | |
| **B: Two-way ANOVA** | | | | | | | | | | | | |
| **Index** | **Source of**  **variation** | | **Sum of**  **Squares** | | | **df** | | **Mean squares** | | | | **F-ratio** |
| Soft deposit | A (Age) | | 0.35 | | | 4,186 | | 0.09 | | | | 2.47\* |
|  | B (Sex) | | 0.11 | | | 1,186 | | 0.11 | | | | 3.08 |
|  | A×B | | 0.05 | | | 4,186 | | 0.01 | | | | 0.36 |
| Plaque | A (Age) | | 0.14 | | | 4,186 | | 0.03 | | | | 1.62 |
|  | B (Sex) | | 0.15 | | | 1,186 | | 0.15 | | | | 7.16\*\* |
|  | A×B | | 0.06 | | | 4,186 | | 0.01 | | | | 0.68 |
| Calculus | A (Age) | | 0.05 | | | 4,186 | | 0.01 | | | | 2.07 |
|  | B (Sex) | | 0.00 | | | 1,186 | | 0.00 | | | | 0.48 |
|  | A×B | | 0.03 | | | 4,186 | | 0.01 | | | | 1.21 |
| DMF score | A (Age) | | 0.25 | | | 4,186 | | 0.06 | | | | 0.84 |
|  | B (Sex) | | 0.50 | | | 1,186 | | 0.50 | | | | 6.73\*\* |
|  | A×B | | 0.14 | | | 4,186 | | 0.03 | | | | 0.47 |
| Gingivitis | A (Age) | | 0.41 | | | 4,186 | | 0.10 | | | | 2.07 |
|  | B (Sex) | | 0.04 | | | 1,186 | | 0.04 | | | | 0.75 |
|  | A×B | | 0.08 | | | 4,186 | | 0.02 | | | | 0.41 |
| Composite oral health index | A (Age) | | 1.37 | | | 4,186 | | 0.34 | | | | 1.16 |
|  | B (Sex) | | 0.01 | | | 1,186 | | 0.01 | | | | 0.05 |
|  | A×B | | 0.47 | | | 4,186 | | 0.12 | | | | 0.40 |
|  |  | |  | | |  | |  | | | |  |

\*p < 0.05, \*\*p < 0.01

**Table 4: Analysis of variance of various oral health indicators with reference to the mode of dental cleaning**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **A) Descriptive Statistics** | | | | | | | | | | | |
| Index | | Mean values of various indices as per mode of tooth cleaning & sex | | | | | | | | | |
|  | | Tooth brush | | | Twig brush  (*Datun*) | | | Both Brush and *Datun* | | | |
|  | | M | | F | M | | F | M | | F | |
| No. of Subjects | | 64 | | 72 | 21 | | 7 | 19 | | 13 | |
| Soft deposit | | 0.64 | | 0.49 | 0.95 | | 0.57 | 0.47 | | 0.23 | |
| Plaque | | 0.69 | | 0.46 | 1.02 | | 0.54 | 0.49 | | 0.42 | |
| Calculus | | 0.48 | | 0.41 | 0.49 | | 0.50 | 0.49 | | 0.61 | |
| DMF score | | 0.53 | | 0.89 | 0.29 | | 0.43 | 0.58 | | 1.16 | |
| Gingivitis | | 1.42 | | 1.42 | 0.95 | | 1.86 | 1.42 | | 1.31 | |
| Composite oral health index(COHI) | | 3.89 | | 3.78 | 3.75 | | 4.18 | 3.66 | | 4.11 | |
|  | | | | | | | | | | | |
| **B) Two-way ANOVA** | | | | | | | | | | | |
|  | Source of variation | | Sum of Squares | | | Degree of freedom | | | Mean squares | | F-ratio |
| Soft deposit | A (mode of cleaning) | | 0.17 | | | 2, 190 | | | 0.08 | | 2.07 |
|  | B (sex) | | 0.10 | | | 1, 190 | | | 0.10 | | 2.49 |
|  | A×B | | 0.01 | | | 2, 190 | | | 0.00 | | 0.16 |
| Plaque | A (mode) | | 0.11 | | | 2, 190 | | | 0.06 | | 2.30 |
|  | B (sex) | | 0.10 | | | 1, 190 | | | 0.10 | | 4.17\* |
|  | A×B | | 0.04 | | | 2, 190 | | | 0.02 | | 0.89 |
| Calculus | A (mode) | | 0.01 | | | 2, 190 | | | 0.01 | | 0.74 |
|  | B (sex) | | 0.00 | | | 1, 190 | | | 0.00 | | 0.10 |
|  | A×B | | 0.01 | | | 2, 190 | | | 0.00 | | 0.70 |
| DMF Score | A (mode) | | 0.44 | | | 2, 190 | | | 0.22 | | 2.69 |
|  | B (sex) | | 0.32 | | | 1, 190 | | | 0.32 | | 3.90\* |
|  | A×B | | 0.14 | | | 2, 190 | | | 0.07 | | 0.88 |
| Gingivitis | A (mode) | | 0.00 | | | 2, 190 | | | 0.00 | | 0.03 |
|  | B (sex) | | 0.10 | | | 1, 190 | | | 0.10 | | 1.82 |
|  | A×B | | 0.31 | | | 2, 190 | | | 0.16 | | 2.77 |
| COHI | A (mode) | | 0.02 | | | 2, 190 | | | 0.01 | | 0.03 |
|  | B (sex) | | 0.10 | | | 1, 190 | | | 0.10 | | 0.29 |
|  | A×B | | 0.10 | | | 2, 190 | | | 0.05 | | 0.15 |

\*p < 0.05, \*\*p < 0.01

**Table 5: Analysis of variance of various periodontal health indicators with reference to BMI Z-scores and sex**

**A) Descriptive Statistics**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Index | Mean value of index under BMI Z- score category | | | | | |
| > 0 | | 0 to -1.0 | | <-1.0 | |
|  | M | F | M | F | M | F |
| No. of subjects | 4 | 7 | 10 | 36 | 90 | 49 |
| Soft deposit | 0.25 | 0.29 | 0.70 | 0.58 | 0.69 | 0.39 |
| Plaque | 0.12 | 0.47 | 0.58 | 0.51 | 0.76 | 0.43 |
| Calculus | 0.56 | 0.33 | 0.45 | 0.47 | 0.49 | 0.45 |
| DMF score | 0.50 | 0.57 | 0.00 | 0.83 | 0.54 | 1.06 |
| Gingivitis | 1.00 | 0.71 | 1.60 | 1.61 | 1.31 | 1.41 |
| Composite oral health index (COHI) | 2.43 | 2.38 | 3.53 | 4.14 | 3.92 | 3.86 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **B. Two-way ANOVA** | |  |  |  |  |
|  | Source of variation | Sum of Squares | df | Mean squares | F-ratio |
| Soft deposit | A (Z-score) | 0.15 | 2, 190 | 0.07 | 1.15 |
|  | B (sex) | 0.02 | 1, 190 | 0.02 | 0.38 |
|  | A×B | 0.03 | 2, 190 | 0.01 | 0.22 |
| Plaque | A ( Z-score ) | 0.10 | 2, 190 | 0.05 | 1.31 |
|  | B (sex) | 0.00 | 1, 190 | 0.00 | 0.01 |
|  | A×B | 0.12 | 2, 190 | 0.06 | 1.57 |
| Calculus | A ( Z-score ) | 0.00 | 2, 190 | 0.00 | 0.03 |
|  | B (sex) | 0.01 | 1, 190 | 0.01 | 0.86 |
|  | A×B | 0.02 | 2, 190 | 0.01 | 0.76 |
| DMF Score | A ( Z-score ) | 0.58 | 2, 190 | 0.29 | 3.27\* |
|  | B (sex) | 0.01 | 1, 190 | 0.01 | 0.06 |
|  | A×B | 0.04 | 2, 190 | 0.02 | 0.23 |
| Gingivitis | A ( Z-score ) | 0.16 | 2, 190 | 0.08 | 0.60 |
|  | B (sex) | 0.34 | 1, 190 | 0.34 | 2.59 |
|  | A×B | 0.15 | 2, 190 | 0.07 | 0.56 |
| COHI | A ( Z-score ) | 2.84 | 2, 190 | 1.42 | 2.72 |
|  | B (sex) | 0.04 | 1, 190 | 0.04 | 0.08 |
|  | A×B | 0.15 | 2, 190 | 0.08 | 0.14 |

\*p < 0.05, \*\*p < 0.01