Calibration Exercise was undertaken by the investigator, which indicated a substantial agreement (0.8).

After the calibration, a pilot study was carried out on 30 children from each group. The following formula was applied to get the sample size.

\[ N = \frac{2 (1.74) (SD^2A + SD^2K)}{D^2} \]

\[ SDA=\text{Standard deviation of anganwadi group} \]
\[ SDK=\text{Standard deviation of kindergarten group} \]
\[ D=\text{Difference between means} \]

From the list of Kindergarten/Anganwadi of Mangalore city, the study sample was obtained by simple random sampling procedure, using random number table.

A sample size of 750 was estimated based on results of the pilot study. A total of 798 subjects were included in the study. Out of those 382 children were from anganwadi and 386 from kindergarten. Among them 359 (46.5%) were males and 409 (53.3%) were females.

Autoclaved instruments were used to examine the students. Each tooth surface was examined with the use of an explorer, mouth mirror and CPI probe. Clinical assessment of dental caries was done by Dentition status and treatment need (WHO Oral Health Assessment Form, 1997) using dentition status part only and decayed, missing and filled teeth were calculated from the information. Appropriate arrangements were made for the children who required care and treatment. Survey findings were reported to respective authorities on same day.

Statistical analysis
The data was entered into the computer using SPSS (11.0) package and analyzed using chi-square test.

Results
An epidemiological study was conducted on 382 anganwadi and 386 kindergarten children of Mangalore to find out their dental caries experience.

Out of the 382 children in the anganwadi group, 183 (47.90%) were males and 199 (52.10%) females. In the kindergarten group, there were 176 (45.6%) males and 210 (54.40%) females. The difference was not statistically significant (p=0.521).

Table 1 and Table 2 depicts distribution of intake of snacks and rinsing after every meal, which was highly significant (p≤0.004). Table 3 and Table 4 shows oral hygiene practices of both groups. (Fig 1)

Regarding previous visit to a dentist, more kindergarten children (39.60%) compared to anganwadi children (19.60%) had visited the dentist. And the reasons for visiting a dentist, 44 (11.50%) of anganwadi children and 68 (17.10%) of kindergarten children visited the dentist for tooth pain. Twenty anganwadi children (5.20%) and 45 (11.70%) kindergarten children visited the dentist for regular dental check-ups. Eight (2.10%) anganwadi children and 6 (1.60%) of kindergarten children visited the dentist for bleeding from the gums. These responses showed very high statistical significance. (p<0.001).

The prevalence of dental caries among anganwadi children was 81.4%. Among the kindergarten children the prevalence of dental caries was 62.3%. This difference was very highly statistically significant. (p<0.001)

Table 5 depicts dental caries experience among kindergarten and anganwadi children. (Fig 2). The mean dmft among the anganwadi children was 4.62 (3.82) and among kindergarten children the mean dmft score was 3.42 (3.77). The difference was very highly statistically significant (p<0.001).

Table 6 shows the mean dmft score in males was 5.09 (4.08) and females 4.20 (3.51) for anganwadi children.

The mean dmft in relation to oral hygiene practice among anganwadi children was 4.55 (3.81) and 8.12 (2.23) for the toothbrush and finger users. Statistically the difference was highly significant when the mean dmft of anganwadi was related to oral hygiene practice. (p<0.009). The mean dmft in relation to oral hygiene practice among kindergarten children was 3.42 (3.77) for the toothbrush users.

Table 7 and Table 8 showing the mean dmft in relation to the material used for cleaning the teeth and to frequency of cleaning the teeth among both groups. A majority of children in both the group used toothpaste. However, ten children from anganwadi group used charcoal and two children used salt for cleaning their teeth, whereas only one child from kindergarten group used charcoal and none used salt.

<table>
<thead>
<tr>
<th>Table 1: Distribution of pre-school children according to frequency of eating snacks in between meals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Once</td>
</tr>
<tr>
<td>Twice</td>
</tr>
<tr>
<td>Thrice</td>
</tr>
<tr>
<td>More than three times</td>
</tr>
<tr>
<td>X²=13.526 p&lt;0.004 hs</td>
</tr>
</tbody>
</table>