Activities of Daily Living (ADLs) and Personal hygiene were the term used in healthcare to refer to daily self care activities within an individual’s residence, in outdoor environments or both. School children routinely refer to the ability or inability to perform ADLs as a measurement of the functional status of daily living, particularly in regard to younger children need special attention. Younger children often require help from adults to perform ADLs, as they have not yet developed the skills necessary to perform these independently (Raghavan, 2005).

ADLs are defined as “the things we normally do such as feeding ourselves, bathing, dressing, grooming, work, homemaking and leisure.” Many national surveys collect data on the ADL status of the US population. While basic categories of ADLs have been suggested, what specifically constitutes a particular ADL in a particular environment for a particular person may vary. Adaptive equipment or device may be used to enhance and increase independence in performing ADLs.

Personal hygiene is the first step to good grooming and good health. Many of school age children are not aware of activities of daily living and personal hygiene (Stanhope & Lancaster, 2000).

Personal hygiene is one of the most effective ways to protect ourselves and others from illness. Hygiene doesn’t just keep a person clean – it helps the skin fight infection, prevents injuries, removes substances from the skin that might promote the growth of bacteria, keeping a person’s mouth and gums healthy (Swaminathan, 2010). Good personal hygiene makes a person feel more comfortable and relaxed, while boosting their spirits. A person who is clean and well-groomed is pleasant to be around (Polit, 2010).

Review of literature
India has one of the fastest growing youth populations in the world and school adolescents accounted for one-third of the population; adolescents aged 13 and 19 years constitute nearly 66 million (NCCFN, 2000). Studies showed that children need more motor activities for growth and development like grooming, dressing, bathing, toileting, feeding.

A study conducted on knowledge of female adolescents about personal hygiene in a Tehran suburb among 250 students, applying 44 items questionnaire revealed that 77 percent had adequate knowledge but 33 percent of them had inadequate knowledge on ADLs such as bathing, personal hygiene (Pour eslami & Osati-Ashtiani, 2002).

In yet another study, Chung (2008) found that the cognition did not modify the relationships between personal hygiene and activities of daily living and to facilitate ADL changes, and for children more innovative structural designs, higher staffing levels and better care processes may be indicated.

Objectives
A study was therefore conducted (i) To assess the level of knowledge and attitude regarding Activities

Abstract
This study attempted to assess the level of knowledge and attitude regarding activities of daily living and personal hygiene among school children and evaluate the effect of structured teaching programme on it. Adopting an evaluate approach, pre-experimental one group pre-test post-test design was used in this study. The sample consisted of 80 school children and convenient sampling technique was employed. A significant association was found between the attitude regarding activities of daily living and personal hygiene and age ($\chi^2$-8.071), sex ($\chi^2$-4.984), class of education ($\chi^2$-1.618), and education of parents ($\chi^2$ -18.14). Structured teaching programme was effective in improving the knowledge and favourable attitude of school children regarding activities of daily living and personal hygiene.
of Daily Living (ADL) and personal hygiene among school children, (ii) To evaluate the effectiveness of structured teaching programme on knowledge and attitude regarding ADL and personal hygiene among school children, and (iii) To find out the association between knowledge and attitude regarding ADL and personal hygiene among school children.

**Hypotheses**

Ø There is a significant difference between the mean pre-test and post-test (i) knowledge and (ii) attitude scores regarding ADL and personal hygiene among school children.

Ø There is a significant association between the (i) level of knowledge regarding ADL and personal hygiene and (ii) selected demographic variables such as age, sex, class of education, education and occupation of parents of school children.

Ø There is a significant relationship between knowledge and attitude of ADL and personal hygiene among school children.

**Methodology**

The conceptual framework used for this study was based on Ida John Orlando’s deliberate interactive model. An evaluate approach was used in this study. The research design was pre-experimental one group pre-test post-test design. The study was conducted at Arattavadi and Pinjur villages at Chengm Block, Thiruvannamalai District. The target population of the study was school children who need ADL and personal hygiene on structured teaching programme. The sample consisted of 80 school children who need ADL and personal hygiene of structured teaching programme at Chengam Block. Convenient sampling technique was used.

**Criteria for selecting the sample:** Willing school children aged 11-17 years with poor ADL and personal hygiene; both male and female, who could read and understand Tamil and English were included. School children who got already training regarding ADL and personal hygiene and whose parents were in the medical field were excluded.

**Data collection:** Data was collected using a structured knowledge questionnaire and 3-point Likert attitude scale. The knowledge questionnaire was used to evaluate the knowledge of school children regarding ADL and personal hygiene. An attitude scale was used to assess the attitude of school children regarding ADL and personal hygiene.

**Description of tool:** Tool 1 was the structured knowledge questionnaire to assess knowledge of school children regarding ADL and personal hygiene. Part 1 consisted of the demographic characteristics of school children such as age, sex, religion, class of education, education and occupation of parents, previous knowledge of ADL and personal hygiene. Part II consisted of 20 items of multiple choice type regarding ADL and personal hygiene. The questionnaires were organised under areas such as bathing, brushing, exercise, food pattern, playing and sleeping pattern etc. Each question had four alternatives with one correct response and 3 distractions. The maximum possible score was 20. The subjects were classified arbitrarily into 3 groups based on their knowledge score: Adequate knowledge: >76%; Moderate Knowledge: 51%-75%; Inadequate knowledge: <50%

Tool 2 was a Likert attitude scale with 10 items out which 5 items were positive attitude and the remaining 5 items were negative attitude. The attitude was measured on a 3-point Likert scale. The subjects were classified arbitrarily into 3 groups based on their attitude score: Positive attitude: > 76%; Neutral attitude: 51%-75%; Negative attitude: < 50%

**Validity and reliability:** The research tool was submitted to 5 experts in the field on nursing, medical and education. The reliability of the tool was checked by split half method. (r=0.92 knowledge questionnaire and r=0.90 attitude scale). Hence the tool was found to be reliable for this study.

To assess the feasibility and practicability of the study, a pilot study was done on 10 of the non-study subjects in a non-study setting. The findings suggested that the study was feasible.

**Results**

Table 1 and Fig 1 show that in the pre-test, majority 50 (62.5%) had moderately adequate knowledge, 26 (32.5%) had inadequate knowledge, 4 (5%) had adequate knowledge regarding ADL and personal hygiene of school children. Whereas in the post-test 80 (100%) had adequate knowledge, none of the subjects had inadequate knowledge.

Table 2 and Fig 2 show that in the post-test all subjects (80 out of 80) had positive attitude regarding ADL and personal hygiene in the pre-test, only 38 out of 80 (47.5%) had positive attitude, 42 out of 80 (52.5%) were uncertain regarding ADL and personal hygiene and none of the subject had negative attitude towards ADL and personal hygiene of school children.

A highly significant difference in the mean scores between pre-test and post-test was seen in relation to knowledge and attitude regarding ADL and personal hygiene among school children (Table 3, Fig
The mean knowledge pre-test score (10.75%) was significantly lesser than the mean knowledge post-test score (18.13%). Similarly the mean attitude pre-test score (20.65%) was significantly lesser than the mean attitude post-test score (28.35%). This difference was true difference and not by chance.

Results

In the pre-test, majority 50 (62.5%) had moderate knowledge, 26 (32.5%) had inadequate knowledge, 4 (5%) had adequate knowledge regarding ADL and personal hygiene, whereas in the post-test 80 (100%) had adequate knowledge and none of the subjects had inadequate knowledge.

In the post-test, majority of subjects (100%) had positive attitude whereas in the pre-test only 38 out of 80 (47.5%) had positive attitude, 42 out of 80 (52.5%) had neutral attitude regarding ADL and personal hygiene and none of the subjects had negative attitude. The difference in pre-test and post-test attitude scores might be due to structured teaching.

The mean pre-test knowledge scores of school children regarding ADL was 10.75 (SD=2.216) before receiving STP. Whereas the mean post-test knowledge score was 18.13 (SD=0.939) after receiving STP. To test the difference between the two mean ‘t’ test was computed and the obtained value at df (39) was 21.871, which was significant at 0.05 level.

The mean post-test attitude scores (28.35 SD=1.099) was higher than the mean pre-test attitude score (20.65 at df 39). The obtained ‘t’ value 19.454 at df 39 was significant at 0.05% level. Since the obtained ‘t’ value was higher than the table value the researcher accepted the research hypothesis indicated that structured teaching programme on ADL and personal hygiene had a significant role in increasing the knowledge and change in attitude regarding ADL and personal hygiene.

There was no relation between knowledge and attitude of the subjects. This might be because knowledge gain and attitude change had not increased proportionately; hence there was no significant relationship between knowledge and attitude.

A significant association was found between the knowledge regarding ADL and personal hygiene and class of education ($\chi^2=18.38$), education of parents ($\chi^2=6.996$), occupation of parents ($\chi^2=7.778$), previous knowledge of ADL and personal hygiene ($\chi^2=7.124$).

It was found that there was a significant association between the attitude

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Pre-test</th>
<th>Post-test</th>
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<tbody>
<tr>
<td>Inadequate knowledge (&lt; 50%)</td>
<td>26</td>
<td>0</td>
</tr>
<tr>
<td>Moderate knowledge (51%-75%)</td>
<td>50</td>
<td>0</td>
</tr>
<tr>
<td>Adequate knowledge (&gt; 76%)</td>
<td>4</td>
<td>80</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Pre-test</th>
<th>Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Neutral</td>
<td>42</td>
<td>0</td>
</tr>
<tr>
<td>Positive</td>
<td>38</td>
<td>80</td>
</tr>
</tbody>
</table>

![Fig 1: Percentage distribution of pre- and post-test knowledge regarding activities of daily living and personal hygiene](image1)

![Fig 2: Distribution of pre-test and post-test attitude scores of school children](image2)
Table 3: Comparison of pre and post-test mean knowledge and attitude scores

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Paired 't' test</th>
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<tbody>
<tr>
<td>Pre-test knowledge score</td>
<td>80</td>
<td>10.75</td>
<td>2.216</td>
<td>21.87</td>
</tr>
<tr>
<td>Post-test knowledge score</td>
<td>80</td>
<td>18.13</td>
<td>0.939</td>
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<tr>
<td>Pre-test attitude score</td>
<td>80</td>
<td>20.65</td>
<td>2.537</td>
<td>19.454</td>
</tr>
<tr>
<td>Post-test attitude score</td>
<td>80</td>
<td>28.35</td>
<td>1.099</td>
<td></td>
</tr>
</tbody>
</table>

Fig. 3: Pre-post test mean knowledge and attitude scores regarding Activities of Daily Living and Personal Hygiene

**Discussion**

Assessment and process skills measures are valid for detecting differences in daily activities of school children with and without mild disabilities. Our findings supported the validity of the Assessment of motor and process skill measures of Brigittee et al (2008), when used to identify ADL problems among children with difficulties. The present study shows that in post-test, majority (100%) had positive attitude whereas in the pre-test only 38 out of 80 (47.5%) had positive attitude, 42 out of 80 (52.5%) had neutral attitude regarding ADL and personal hygiene and none had negative attitude. The difference in pre-test and post-test attitude scores might be due to structured teaching.

The present study shows that the mean post-test attitude score 28.35 (SD=1.099) was higher than the mean pre-test. The attitude score was 20.65 at df 39. The obtained ‘t’ value 19.454 at df 39 was significant at 0.05% level. Since the obtained ‘t’ value was higher than the table value the researcher accepted the research hypothesis. It indicated that STP on ADL and personal hygiene had a significant role in increasing the knowledge and change in attitude regarding ADL and personal hygiene.

A significant association was found between the knowledge regarding ADL and personal hygiene and class of education ($\chi^2$-18.38), education of parents ($\chi^2$-6.996), occupation of parents ($\chi^2$-7.778), previous knowledge of ADL and personal hygiene ($\chi^2$-7.124). Further, there was a significant association between the attitude regarding ADL and personal hygiene age ($\chi^2$-8.071), sex ($\chi^2$-4.984), class of education ($\chi^2$-1.618), and education of parents ($\chi^2$-18.14).

The present study shows that the structured teaching programme was effective in improving the knowledge and bringing a change of attitude of school children regarding ADL and personal hygiene.

**Implications**

_Nursing practice:_ It helps the nurse to understand the effectiveness of teaching school children regarding ADL and personal hygiene. The finding of the study clearly point out that the teaching regarding ADL and personal hygiene will improve the knowledge and change attitude leading to improved quality of life among school children. It will help the nursing personnel to impart health education to school children and teachers in school or community.

_Nursing Education:_ Nurse educators can improve and incorporate practical training on management of ADL and personal hygiene in nursing curriculum.

_Nursing administration:_ Cost effective production of materials used for teaching by nursing staff should be encouraged. It will encourage the nurse administrators to prepare and issue handouts regarding ADL and personal hygiene which will need for day to day activities.

_Nursing Research:_ Extensive research must be conducted in this area to identify several methods of education in different settings, which are culturally acceptable, using various teaching strategies of education.

**Limitations:** The investigator did not have control on teaching given by school children, teachers and other personnel of health team. Secondly, the study was conducted among participants from selected school children. Hence, generalisation can be done with caution.

**Recommendations**

- A similar study can be replicated on a large sample and in different setting to generalise the study findings.
A similar study can be conducted with (i) experimental research design having control group, (ii) using a qualitative approach, or (iii) including the knowledge, attitude and practice regarding ADL and personal hygiene.

**Conclusion**

Our results proved that the structured teaching programme was effective in improving the knowledge and attitude of school children regarding ADL and personal hygiene.

**References**

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