Effectiveness of information education and communication package on knowledge and attitude regarding early identification of dyslexic children among primary school teachers in selected schools at Puducherry

Suganya K, S Prabavathy and Dr. K Renuka

Abstract
“Dyslexia” refers to the inability of children to meet their academic needs which creates frustration among them. Their parents and teachers see a bright, enthusiastic child who is not learning to read and write and perceive their inability as lack of hard work. Ironically, no one knows how hard the dyslexic is trying. Inspite of their hard work such perception exists among teachers as they are unable to recognize the disability of child due to lack of knowledge and negative attitude regarding dyslexia. Therefore, by imparting knowledge and positive attitude to school teachers it is possible to identify a child suffering from dyslexia and early interventions can be implemented for the betterment of a child’s future.

A study to Effectiveness of Information Education and Communication Package on Knowledge and Attitude regarding Early Identification of Dyslexic Children among Primary School Teachers in Selected Schools at Puducherry. The Research design chosen for this study was Pre Experimental Design (One group pre-test and post-test design). The study was conducted in selected school s at Puducherry. The population includes the primary school teachers in selected schools at Puducherry. The sample size for this study was 60 primary school teachers. The sampling technique used for this study was Purposive Sampling technique. Pre-test and Post-test level of Knowledge and Attitude was assessed using structured questionnaires. Paired t test and Kruskal-Wallis and Mann Whitney test was used to find out the effectiveness and to associate the level and knowledge and attitude with the selected demographic variables. The study reveals that Information Education and Communication Package has high statistical significance in improving knowledge and attitude among primary school teachers at p value <0.0001.

Keywords: information education and communication package, primary school teachers, dyslexia

Introduction
Reading is complex. It require our brains to connect letters to sounds, put those sounds in the right order, and put the words together into sentences and paragraphs we can read and comprehend. When these connections to brain and learning is disabled it results in dyslexia. Dyslexia is a specific learning disability that is neurobiological in origin. It is also known as reading disorder with troublesome reading despite normal intelligence. It is characterized by difficulties with accurate and/or fluent word recognition and by poor spelling and decoding abilities. Dyslexia is prevalent worldwide. It is the most common form of learning disability, with a prevalence of at least 10 percent in any given population. A dyslexic child exhibit difficulties with learning and using academic skills such as impairment in reading, written expression and mathematics that are substantially below the level of child’s chronological age. These learning difficulties begin during school-age years, but it cannot be fully identified until the demands for those affected academic skills exceed the individual’s limited capacities. Although there are strategies to overcome, dyslexia cannot be “cured” – it is lifelong. But with the right supports, dyslexic individuals can become highly successful students and adults. Since teacher’s observation plays a crucial role in identifying children who may be at risk of developing learning difficulties, their knowledge and attitude are becoming important factors in successfully navigating the child’s abilities. But teachers lack
in knowledge and positive attitude due to myths and inadequate training pertaining to dyslexia. Information Education and Communication Package will have a positive influence on school teachers to know more about dyslexic child who manifest complex psychopathology. Therefore by successfully imparting adequate knowledge and by sowing positive attitude, a teacher can shape the life of a dyslexic child in a productive way.

Need for the study
Childhood mental disorders are quite common, occurring in about one quarter of this age group in any given population. Children with mental health problems can have lower educational achievement, greater involvement in antisocial activities and fewer stable placements in their career. It was estimated that there is an increased prevalence of childhood mental disorders worldwide. World health reported that 20% of children suffer from a disabling mental illness. The incidence of dyslexia varies widely in countries which accounts for 30 million Americans, 6 million Britains and 3 million Canadians. Various studies conducted in different parts of the world revealed that 17.6% of students in a school of United Arabs suffer from dyslexia; 8% of school children in Ireland suffer from speech and language difficulty; 8.5% in Italy and 3.9% in China suffer from learning disability. In India the prevalence of dyslexia varies between 3% and 10% of the children. Indian studies revealed that there were 13% of specific learning disability prevalent in primary schools of Chandigarh, 13.67% in Mysore, 7.43% in Rajasthan, 3% to 5% in Hyderabad, 10% in Haryana and 27% in Tamil Nadu, Chennai. Dyslexia is also expected to have high degree of co-morbidity. Population based surveys suggest that about 30% of children with learning disability have behavioral and emotional problems. Since teachers have more influence over the child’s life in the classroom, they are the one who can identify dyslexia at the earliest.

Statement of the problem
Effectiveness of Information Education and Communication Package on Knowledge and Attitude regarding Early Identification of Dyslexic Children among Primary School Teachers in Selected Schools at Puducherry.

General objectives
- To assess the level of knowledge and attitude on early identification of dyslexic children among school teachers.
- To assess the effectiveness of Information Education and Communication Package on knowledge and attitude on early identification of dyslexic children.
- To associate the level of knowledge and attitude on early identification of dyslexic children and selected demographic variables.

Methodology
Research design
Pre – Experimental Design (One group pre-test and post-test design) design was used for this study.

Research approach
The quantitative research approach was used for this study.

Sample
Primary school teachers in selected schools at Puducherry.

Sample size
The sample size for this study was 60 primary school teachers.

Sample Technique
The target population who fulfill the inclusion criteria are selected using Purposive sampling Technique.

Research Variables
Independent variable
Information Education and Communication Package.

Dependent variable
Knowledge and attitude of primary school teachers.

Sample Selection criteria
Inclusion criteria
- Teachers who teach age group of 5–10 years.
- Both male and female teachers.
- Teachers who are willing to participate in study.
- Teachers who are available at the time of data collection.
- Teachers who are working fulltime in selected private primary schools.

Exclusion criteria
- Teachers those who are on leave during data collection.
- Teachers who have undergone any special training on learning disabilities of children.

Population
The accessible population includes the primary school teachers in selected schools at Puducherry.

Description of tool
Part – I Demographic variables. It consists of 13 items seeking information about teachers (Age, Gender, Religion, Residential area, Educational level, Subject area, Handling of classes, Years of experience, Income, School changed, Marital status, Children, Family type).

Part – II Structured Knowledge and Attitude questionnaires. It consists of 36 questions to assess the knowledge and attitude regarding early identification of dyslexia.

Scoring Interpretation
Knowledge part comprises of 21 questions

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate</td>
<td>Below 50%</td>
</tr>
<tr>
<td>Moderate</td>
<td>50–75%</td>
</tr>
<tr>
<td>Adequate</td>
<td>Above 75%</td>
</tr>
</tbody>
</table>

Attitude part comprises of 15 questions

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>56-75</td>
</tr>
<tr>
<td>Neutral</td>
<td>36-55</td>
</tr>
<tr>
<td>Negative</td>
<td>15-35</td>
</tr>
</tbody>
</table>
Research findings
Assessment of knowledge among primary school teachers regarding early identification of dyslexia

Table: On level of knowledge

<table>
<thead>
<tr>
<th>Level of Knowledge</th>
<th>Pre-test (n = 60)</th>
<th>Post-test (n = 60)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Inadequate knowledge (below 50%)</td>
<td>55</td>
<td>91.7</td>
</tr>
<tr>
<td>Moderate (50–75%)</td>
<td>5</td>
<td>8.3</td>
</tr>
<tr>
<td>Adequate (above 75%)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100</td>
</tr>
</tbody>
</table>

The above table and graph show that during the pre-test out of 60 samples, nearly 55 (91.7%) of primary school teachers had inadequate knowledge, 5 (8.3%) had moderate level of knowledge and 0% had adequate knowledge. And in post-test, 42 (70.0%) had adequate knowledge, 18 (30.0%) had moderate knowledge and 0% had inadequate knowledge.

Assessment of attitude among primary school teachers regarding early identification of dyslexia

Table: On level of attitude

<table>
<thead>
<tr>
<th>Level of Attitude</th>
<th>Pre-test (n = 60)</th>
<th>Post-test (n = 60)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Positive Attitude (56–75%)</td>
<td>2</td>
<td>3.3</td>
</tr>
<tr>
<td>Neutral (36–55)</td>
<td>53</td>
<td>88.3</td>
</tr>
<tr>
<td>Negative Attitude (15–35)</td>
<td>5</td>
<td>8.3</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100</td>
</tr>
</tbody>
</table>

The above table and graph show that during the pre-test out of 60 samples, only 2 (3.3%) of primary school teachers had positive attitude, 53 (88.3%) had neutral attitude and 5 (8.3%) had negative attitude. In post-test, 58 (96.7%) had positive attitude, 2 (3.3%) had neutral attitude and 0% had negative attitude.

Effectiveness of Information Education and Communication Package on knowledge regarding early identification of dyslexic children among primary school teachers

Table: On effectiveness of level of knowledge

<table>
<thead>
<tr>
<th>Sl no</th>
<th>Knowledge</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>t-test</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Pre-test</td>
<td>7.07</td>
<td>2.48</td>
<td>0.32</td>
<td>23.912</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>2.</td>
<td>Post-test</td>
<td>16.40</td>
<td>1.72</td>
<td>0.22</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Highly statistically significant at p < 0.0001 level.

Effectiveness of information education and communication package on attitude regarding early identification of dyslexic children among primary school teachers

Table: On effectiveness of level of attitude

<table>
<thead>
<tr>
<th>Sl no</th>
<th>Attitude</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
<th>t-test</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Pre-test</td>
<td>42.78</td>
<td>6.68</td>
<td>0.86</td>
<td>19.21</td>
<td>&lt;0.000</td>
</tr>
<tr>
<td>2.</td>
<td>Post-test</td>
<td>60.45</td>
<td>2.71</td>
<td>0.35</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Highly statistically significant at p < 0.0001 level.
The above table and graph show that the mean pre-test attitude score was 42.78 and post-test score was 60.45, which was higher than the pre-test. And the pre-test standard deviation score was 6.68 and post-test score was 2.71. The obtained paired ‘t’ value was 19.212 and p value was 0.0001. It was highly statistically significant at p < 0.0001 level.

**Association between the Levels of Knowledge and Attitude with the Selected Demographic Variables of Primary School Teachers**

The result findings show that the p value of all demographic variables are greater than 0.05. Thus there is no association between the selected demographic variables and the level of knowledge and attitude.

**Results**

- The present study reveals that before the usage of Information Education and Communication Package, among the 60 primary school teachers 55 (91.7%) of them had inadequate knowledge, 5 (8.3%) had moderate level of knowledge and none had adequate knowledge.
- After educating the teachers through Information Education and Communication Package, 42 (70.0%) have shown significant improvement in the level of knowledge and 18 (30.0%) have gained moderate level of knowledge.
- Before Information Education and Communication Package, only 2 (3.3%) of primary school teachers had positive attitude, 53 (88.3%) had neutral attitude and 5 (8.3%) had negative attitude.
- After educating, 58 (96.7%) had positive attitude, 2 (3.3%) had neutral attitude and none showed negative attitude.
- The study revealed that the post-test level of knowledge and attitude of primary school teachers on early identification of dyslexia was significantly high (p<0.0001) when compared to pre-test by using Paired t test.
- It was also found that there was no association between the level of knowledge and attitude of primary school teachers and the selected demographic variables.

**Conclusion**

The main study was to assess the effectiveness of Information Education and Communication Package on knowledge and attitude regarding early identification of dyslexic children among primary school teachers in selected schools at Puducherry. This study revealed that there is low level of knowledge and negative attitude prevailing among school teachers during the pre-test. After administration of IEC Package the level of knowledge and attitude was improved, which was proved by the post-test. Thus this study concludes that Information Education and Communication Package was statistically significant in improving knowledge and attitude among primary school teachers.

**References**


