Impact of Psycho- Educational Intervention on Stress and Coping among Mute and Hearing Impaired Children

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Abstract: Mute and Hearing impairment is an invisible disability. Who are unable to speak and hearing is called as mute and hearing impaired. The aim of the study was to assess the impact psycho educational intervention on stress appraisal and coping strategies among mute and hearing impaired children. The sample technique followed was convenient sample technique. The data was collected from the 60 (24 girls and 36 boys) mute and hearing impaired children in Victory Board of school, kuppam in Andhra Pradesh. The Stress appraisal measure (SAM) and the Coping strategies scale(CS) were used. Results showed that psycho educational programme has a positive effect on stress appraisal and adaptive coping.

Key word : Stress, coping strategies and mute and hearing impaired children.

Background:
Hearing impairment is so often an invisible disability that it does not often enter the awareness of those whose senses are intact. A textbook knowledge of the physiology and pathology of hearing does not prepare the clinician to cope with a hearing-impaired family member, friend, or colleague, with whom we feel embarrassed, lest our raised voices attract too much attention. Every few studies have related to the hearing impaired children. According to Lazarus and Folkman (1984), stress is a particular relation between a person and its environment, which is evaluated by the person as something that exceeds their resources and puts in danger their well-being. In other words, stress is a reaction that involves physiological, cognitive and emotional responses to situations that imply a change in life (Sandin, 2003), such as the birth of a child with disability. The stress level a person feels depends on two processes: cognitive evaluation or appraisal, and coping. The concept of appraisal makes reference to a primary evaluation process made by the person when facing an event. When a person considers a situation is a threat for their well-being, she or he makes a second appraisal evaluation to take into account the coping options available to deal with it. The evaluation of the coping options available (secondary appraisal) and the assessment of what is at stake (primary appraisal) interact with each other and determine the degree of stress and the emotional response of the individual (Lazarus & Folkman, 1984). Coping, on the other hand, refers to the cognitive and behavioral strategies a person uses to control or manage situations that are appraised or evaluated as stressful (Sandin, 1999). Summarizing, it can be said that stress is an inevitable aspect of the human experience, however it is coping that makes a big difference in the adaptation process.

Mohanraj & Selvaraj, (2013) their research finding showed that children with hearing impairment do not differ in anxiety, frustration and aggression levels. There was a positive correlation between the levels of anxiety, aggression and adjustment excluding frustration among hearing impaired adolescents. Some of the demographic variables showed significant influence on the psychological variables studied. Anxiety, frustration, aggression and adjustment measures are positively correlated. Low frequency information from a hearing aid, medium of English teaching, cues of duration, absence of cues caused amplitude to perceived stress and increased emotional stress (L.Hegarty2013).

Cohen, (2014) research find that they used more avoidant coping and less active coping than the hearing adolescents. higher use of avoidant coping was related to higher levels of test and terror-related symptoms, internal coping was related to higher test stress only, and active coping was related to lower stress symptoms. Identifying and targeting the factors related to developing avoidant coping styles by adolescents with hearing impairment could help them to adopt more efficient coping strategies. Programs should be initiated to teach the adolescents coping strategies, such as problem solving and sharing concerns with
significant others, as well as stress management skills.

Aim of the study:
- To study the impact of psycho-educational intervention on stress, coping strategies among children with mute and hearing impairment.

Objective of the study:
1. To assess the impact of psycho-education intervention on stress appraisal among children with mute and hearing impairment.
2. To assess the impact of psycho-education intervention on various coping strategies among children with mute and hearing impairment.

Hypothesis:
1. There will be significant impact of psycho-educational intervention on stress appraisal among children with mute and hearing impairment.
2. There will be significant impact of psycho-education intervention on coping strategies among children with mute and hearing impairment.

Research Design:
- The main aim of the study was to assess the impact of psychosocial intervention programme on stress and coping mechanisms among children with mute and hearing impairment.
- This required administration of intervention programme and testing its impact, hence, the main part of the study follows a Quasi-Experimental Design without Control group.

<table>
<thead>
<tr>
<th>S.No</th>
<th>Intervention</th>
<th>Components</th>
<th>Methodology</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction</td>
<td>Introduction and brief explanation of Study Pre-Data Collection</td>
<td>Lecture</td>
<td>1 hour</td>
</tr>
<tr>
<td>2</td>
<td>Stress management</td>
<td>Stress and Its Manifestations, Causes of Stress in School Children, Relaxation</td>
<td>Lecture, Demonstration</td>
<td>1 hour</td>
</tr>
<tr>
<td>3</td>
<td>Coping Strategies</td>
<td>Problem Solving, Emotional Focused Coping</td>
<td>Lectures &amp; Role play</td>
<td>1 hour</td>
</tr>
<tr>
<td>4</td>
<td>Termination</td>
<td>Explaining the Reasons to terminate the Interventions and Thanks giving and collecting Post-Intervention Data</td>
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</tr>
</tbody>
</table>

Sampling and sample size:
- Convenience non-probability sampling technique was followed, it means selecting whatever sampling units are conveniently available.
- Total 60 students were enrolled in Victory Board of School for the Hearing Impairment, at kuppam for the academic year 2014-2015. These total 60 students were taken for the present study.

Tools for data collection:
Stress Appraisal Measure (SAM) Scale: Stress Appraisal Measure developed by Peacock and Wong (1989) was used to assess stress among the sample. The measure consistent of 28 statements rated on a scale from 1 to 5 stating not at all, slightly, moderately, considerably and extremely. There were seven subscales namely threat, challenge, centrality, control-self, control others, uncontrollable and stressfulness and each subscale consisted of four statements.

Coping strategies Scale: developed by Srivastava was used to assess the coping strategies used by the students in response to the stress. There were 50 items in the scale which were rated in 5 point Likert scale. Split-of reliability reported for the scale is 0.78 for approach and 0.69 and for avoidance. The test-rest reliability was 0.92. The mean score were used for comparison between groups.

Psycho-educational Intervention Programme: The psychosocial intervention programme was designed for the children with physical disability. The research will provide 15 sessions. Each will last 1 hour. The intervention will be carried out through focus group discussions, lecture method with help of power point presentation. The intervention will cover the following components.

Stress Management: The term ‘stress’ has become an ingrained part of our vocabulary and daily lives. Every other person you meet complains of being stressed out in some way or the other. As the
sources of stress can vary from person to person, the manifestation. It also focuses on the impact of stress on body and mind and the strategies people use to cope with it. This session covered what is stress, types stress, reasons for stress and stress relaxation techniques. The lecture method was adopted by using sign language. The stress management for children had been proved to be useful to face day to day stressful situations. 

**Coping Strategies:** Lazarus (1991) and Folkman (1984) Suggested there are two types of coping responses: Problem – focused and Emotion – focused. Problem-focused coping targets the causes of stress in practical ways which tackle the problem or stressful situation, consequently directly reducing the stress. On the other hand, in emotion-focused coping, individual tries to reduce the negative emotional responses associated with stress. Here the individual is overwhelmed by the emotions and seeks to address them rather knowing/ascertaining the causes for such emotions. This session covered problem solving, emotional focused, coping modifying unhelpful Thoughts. The lecture method was adopted by using sign language. The coping strategies for children had been proved to be useful to solving their problems or difficult situation. The researcher conducting role plays how to solving problems i.e the stress reduces at the time of examination. Planning time management and good reading habits etc. The researcher developing coping silks thought psychosocial intervention.

**Method of data collection:**
- The researcher had approached the correspondent of Victory Board of Hearing impaired school and taken permission to conduct the study. Written consent was taken from the parents of mute and hearing impaired children.
- The basic personal details were collected from the school records.
- The data was collected in one to one interview by using sign language with the help of trained special education teachers who are working in that institution.
- Each interview took about one hour to collect the pre test data. The psychosocial intervention programme was executed to the group. The post data was collected after 3 months.

**Data analysis:**
- The raw data was entered in the excel spread sheet, edited, coded and finalized. The finalized raw data was converted into SPSS for final data analysis.
- The SPSS version 20.0 was utilized for various statistical tools.
- Descriptive Statistics like Mean, Standard Deviation, the ‘t’ test was used to describe the variables.

**Result and Discussion:**
**Impact of psycho-educational intervention on stress appraisal of mute and hearing impaired children.**

<table>
<thead>
<tr>
<th>Dimensions in Stress Appraisal Measure</th>
<th>Pre data Mean± SD</th>
<th>Post data Mean± SD</th>
<th>‘t’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threat</td>
<td>13.63±3.18</td>
<td>9.23±2.51</td>
<td>8.03**</td>
</tr>
<tr>
<td>Challenge</td>
<td>13.55±3.58</td>
<td>16.98±4.06</td>
<td>5.63**</td>
</tr>
<tr>
<td>Centrality</td>
<td>13.81±3.38</td>
<td>9.55±2.53</td>
<td>7.32**</td>
</tr>
<tr>
<td>Control-by self</td>
<td>13.46±3.53</td>
<td>18.25±2.80</td>
<td>8.56**</td>
</tr>
<tr>
<td>Control-by others</td>
<td>14.05±4.68</td>
<td>17.95±2.95</td>
<td>5.52**</td>
</tr>
<tr>
<td>Uncontrollable</td>
<td>13.00±3.51</td>
<td>9.45±2.40</td>
<td>7.43**</td>
</tr>
<tr>
<td>Stressfulness</td>
<td>13.56±3.72</td>
<td>9.90±2.85</td>
<td>6.51**</td>
</tr>
</tbody>
</table>

**Table 1** shows Means, SDs and ‘t’ value of stress appraisal among children with mute and hearing impairment before and after psycho educational intervention.

**Stressfulness:** The mean score of stressfulness in stress appraisal is 13.56 in the pre-test. The mean of stressfulness in stress appraisal is 9.90 in the post-test. When we compare the pre-test and post-test the ‘t’ value 6.51 is significant at the level of 0.01. It shows psycho-educational intervention is significant effect on reducing the stressfulness among children with mute and hearing impairment.

**Threat:** On the dimension of threat the mean score in the pre – test is 13.63. The mean score in post-test is 9.23. When we compare the pre – test and post – test the ‘t’ value 8.03 is significant at level of 0.01. Thus the psycho-educational intervention is highly effective as the children with mute and hearing impairment who have appraised stress as threat before intervention programme is considerably decreased. In the pre – test children with mute and hearing impairment felt stressful satiation is more threatening and they were more
anxious about the outcome of stress. After providing the psycho-educational intervention children with mute and hearing impairment felt stress as less threatening, they were less anxious about the out of the stressful situation.

**Challenge:** The mean score in dimension of challenge in pre – test is 10.45, after providing the psycho – educational intervention the mean score in the dimension of challenge is 13.55. When we compare the pre and post test in the dimension of challenge the ‘t’ value 5.29 is significant at level of 0.01. Thus after providing psycho – educational intervention children with mute and hearing impairment appraised stress as challenge. Thus psycho – education intervention have positive impact on stress appraisal. After providing psycho – educational intervention children with mute and hearing impairment have become stronger and eager to tackle the stressful situation they face.

**Centrality:** The mean score in the dimension of stress as centrality is 13.81 in the pre – test, after providing psycho – educational intervention the mean score is 9.55. The ‘t’ value for the pre and post-test 7.32 is significant at the level of 0.01. Thus the psycho – educational intervention is effective in reducing stress level in children with mute and hearing impairment.

**Control - by- self:** The mean score in the dimension of appraising stress as control-by-self is 10.65 in pre – test. The mean score of appraising stress as control-by-self 13.48 is higher than the pre test. The ‘t’ value 4.23 is shows there is a significant differences between pre – test and post test at the level of 0.01. Thus psycho – educational intervention made the children that can control the stress by themselves. After providing psycho-educational intervention children with mute and hearing impairment felt that they have the ability to do well and can overcome the problems on their own. Thus indicates that they have necessary skills to overcome the problem through the psycho-educational intervention.

**Control – by – others:** The mean score of stress appraisal in the dimension of control-by-others is 9.48 in pre-test. The mean score of stress appraisal in the dimension of control –by-others is 14.05 in the post-test. The ‘t’ value is pre and post-test 6.79 is significant at the level of 0.01. Thus psycho – educational intervention expresses that they can get the help from someone on whom can turn to. Thus children with mute and hearing impairment appraised stressful situation can be controlled by the others such as parents, family members, teacher and peer group.

**Uncontrollable:** The mean score in the dimension of stress as uncontrollable in the pre-test is 13.00. The mean score of stress as uncontrollable in the post-test is 9.45. When we compare the pre-test and post-test the ‘t’ value is 7.43 is highly significant at level of 0.01. Thus psycho-educational intervention is effective to reduce the stress as uncontrollable situation. Thus feelings of hopeless us decreased. It means after providing the psycho-educational intervention the negative appraisal of stress was decreased.

Before psycho educational programme the children with mute and hearing impairment irrespective of their gender, level of education, severity of hearing impairment and social support felt that the stress as threat, uncontrollable occupied their mind and central in their thinking. After providing the psycho educational intervention to children with mute and hearing impairment, they felt stress as less threatening, it is a challenge and it is controllable by themselves and others.

Figure 1 shows the stress appraisal of pre and post data for children with mute and hearing impaired.

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**Impact of psycho-educational intervention in using coping mechanisms among children with mute and hearing impairment.**

<table>
<thead>
<tr>
<th>Coping mechanisms</th>
<th>Pre data</th>
<th>Post data</th>
<th>‘t’</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean± SD</td>
<td>Mean± SD</td>
<td></td>
</tr>
<tr>
<td>Behavioural Approach</td>
<td>35.00±7.95</td>
<td>50.11±6.20</td>
<td>12.15**</td>
</tr>
<tr>
<td>Cognitive Approach</td>
<td>13.00±3.05</td>
<td>21.47±4.08</td>
<td>8.48**</td>
</tr>
<tr>
<td>Cognitive – Behavioural Approach</td>
<td>19.00±3.63</td>
<td>27.83±4.20</td>
<td>9.06**</td>
</tr>
<tr>
<td>Behavioural Avoidance</td>
<td>32.95±6.73</td>
<td>22.06±3.83</td>
<td>10.43**</td>
</tr>
<tr>
<td>Cognitive Avoidance</td>
<td>16.86±3.66</td>
<td>13.26±4.54</td>
<td>4.65**</td>
</tr>
</tbody>
</table>

**indicates significant at 0.05 level.
Table 2 shows the mean and ‘t’ value of coping mechanisms among children with mute and hearing impairment before and after giving psycho educational intervention. The domain wise analysis revealed the following:

**Behavioural Approach:** The mean value of using behavioural approach coping mechanisms in pre test is 35.00. After providing the psycho educational intervention the mean value of using behavioural approach coping mechanisms in post test is 50.11. The ‘t’ value 12.15 is highly significant at level of 0.01. It means there is significant difference in the pre test and post test data. After providing psycho educational intervention to the children with mute and hearing impairment, developed behavioural approach coping mechanisms such as planning, taking decisions, suppressing, completing activities, seeking social support, self control and negotiation.

**Cognitive Approach:** The mean value of using cognitive approach coping mechanisms in pre test is 13.00. After providing psycho educational intervention the mean value of using cognitive approach coping mechanisms in post test is 21.47. This is significant with the ‘t’ value 8.48 at 0.01. Hence there are significant differences in using cognitive approach before and after giving the psycho educational programme to the children with mute and hearing impairment. After providing psycho educational intervention to the children with mute and hearing impairment they developed cognitive approach coping mechanisms such as intellectualization, positive re interpretation, cognitive reappraisal, seeking social support for emotional reasons.

**Cognitive- Behavioural Approach:** The mean value of using cognitive – behavioural approach coping mechanisms in pre test is 19.00, after providing the psycho educational intervention the mean value of using cognitive behavioural approach coping mechanisms in post test is 27.83. These values are significant with ‘t’ value 9.06 at 0.01. Hence there is significant difference in using cognitive behavioral approach before and after giving psycho educational intervention. After providing psycho educational intervention to the children with mute and hearing impairment, they were developed cognitive - behavioural approach coping mechanisms such as planning, taking impulsive decisions, suppressing, completing activities, seeking social support, self control, negotiation, intellectualization, positive re interpretation and cognitive reappraisal seeking social support for emotional reasons.

**Behavioural -Avoidance:** The mean value of using behavioural avoidance coping in pre test is 32.95, after providing the psycho educational intervention the mean value of using behavioural avoidance coping in post test is 22.06. The ‘t’ value 10.43 is significant at the level of 0.01. When we compare these mean values, the post test value is decreased. It means after providing psycho educational intervention to the children with mute and hearing impairment, using behavioural avoidance coping mechanisms such as restrain coping, inhibition of action turning towards religion, escaping, with drawl and feeling helpless were decreased.

**Cognitive – Avoidance:** The mean value of using cognitive – avoidance coping in pre test is 16.86, after providing psycho educational intervention the mean value of using cognitive – avoidance coping in post test is 13.26. These values are significant with ‘t’ value 4.65 at level of 0.0. Hence there is a significant difference in using cognitive avoidance before and after giving the psycho educational intervention. After providing the psycho educational intervention to the children with mute and hearing impairment, they decreased using cognitive avoidance coping mechanisms such as rationalization, distancing, cognitive restructuring, resignation.

Table 2 revealed that there are significant differences in using various coping mechanisms in the pre-test and post test. After giving the psycho educational intervention, children increased to use problem focused coping mechanisms and decreased to use emotional focused coping mechanisms.

Hence psycho educational intervention has a positive impact on using coping mechanisms among children with mute and hearing impairment.

**Conclusion:**

1. There will be impact of psycho educational intervention on stress appraisal among mute and hearing impaired children- is accepted.
   A. After providing the psycho educational intervention to the children with mute and hearing impairment they have experience less stressfulness and appraised stress as challenge.
   B. Thus psycho educational intervention had a positive impact on reducing stressfulness among children with mute and hearing impairment.
2. There will be significant impact of psychoeducational intervention on coping mechanisms used by mute and hearing impaired children - is accepted.

A. After providing the psychoeducational intervention to the children with mute and hearing impairment they used problem focused coping mechanisms decreased the use of emotional coping mechanisms.
B. Thus psychoeducational intervention has positive effect on using coping mechanisms among children with mute and hearing impairment.

Reference: