**A Feasibility Study of a Problem-Solving Workshop for Children Diagnosed with LQTS and their Parents: A Pilot Study of Two Dyads**

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**INTRODUCTION**

- Long-QT Syndrome (LQTS) is an inherited cardiac condition that predisposes individuals to cardiac arrhythmias.  
- Commonly diagnosed in childhood.  
- The clinical manifestation of LQTS is syncope, ventricular tachycardia, or a fast heart rhythm, and sudden death often triggered by: Physical exertion, emotional stress/anger, sleep, medications that affect the QTc interval, electrolyte imbalance, often associated with dehydration.  
- Treatment includes medication, implantable cardiac devices or personal AEDs, or other lifestyle modifications including exercise restrictions.  
- Living with chronic medical conditions in adolescence comes with many critical lifestyle changes and restrictions.  
- These lifestyle changes and restrictions may compromise psychosocial development.

**METHOD**

**Participants**

- **Child Participants**
  - Procedure:
    - IRB approved Study
    - Participants recruited through online methods (e.g. Facebook, Craigslist, SADS) & local hospitals.
    - Families arrived at PCOM at 9:00am and completed baseline questionnaires.
  - Workshop:
    - The workshop ran for approximately 4 hours.
    - Topics covered jointly by two advanced clinical psychology doctoral candidates

- **Parental Participants**
  - Child and parent were introduced to and taught the steps of the Social Problem-Solving Model, which included Problem Orientation, Problem Definition and Formulation, Generation of Alternatives, Decision Making, Solution Implementation, and Solution Verification.
  - Vignettes of common LQTS-related problems were presented to the group for practice and implementation of the Social Problem-Solving Model.
  - Participants completed follow-up questionnaires at 1- and 3-months post workshop.
  - Compensated with $20 in gift cards for follow-up questionnaire completion via SurveyMonkey.

**Questionnaires**

- Social Problem-Solving Inventory-Adolescent, Short Form (SPSI-A)
- General Self-Efficacy Scale
- Children’s Coping Strategies Checklist
- Children’s Health Local of Control Scale
- Satisfaction Questionnaire

**RESULTS & DISCUSSION**

- The baseline assessments and workshop follow-up (1- and 3-month) assessments were analyzed to evaluate change:
  - Child participants in problem-solving abilities, coping, self-efficacy, and locus of control.
  - Parental participants in problem-solving abilities, coping strategies, worry, hope, and hope.

**Figure 1. Change in Total Score on SPSI-A for Children.**

**Figure 2. Change in PDS Score on SPSI-A.**

**Figure 3. Change in Active Coping Factor Score.**

**Figure 4. Change in Support Seeking Strategies Factor Score.**

**Figure 5. Change in CHLOC score.**

**Figure 6. Change in Total GSE Score.**

**Figure 7. Change in Total Score of SPSI-RS for Parents.**

**Figure 8. Change in PPO Scores on SPSI-RS.**

**Figure 9. Change in CHIP score.**

**Figure 10. Change in Worry Score on PedsQL.**

**Figure 11. Change in Total Score of Adult State Hope Scale.**

**Figure 12. Change in Coping on CHIP.**

**Table 1. Feasibility of Workshop as Measured by Satisfaction Questionnaire.**

<table>
<thead>
<tr>
<th>Questionnaire</th>
<th>Child</th>
<th>Parent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Satisfaction</td>
<td>96%</td>
<td>93.67%</td>
</tr>
<tr>
<td>Workshop Information</td>
<td>95%</td>
<td>95%</td>
</tr>
<tr>
<td>Workshop</td>
<td>93%</td>
<td>100%</td>
</tr>
<tr>
<td>Pretest</td>
<td>97%</td>
<td>98.8%</td>
</tr>
<tr>
<td>Topics Covered</td>
<td>95%</td>
<td>91.9%</td>
</tr>
<tr>
<td>Length/Location</td>
<td>100%</td>
<td>85%</td>
</tr>
<tr>
<td>Parents Only</td>
<td>N/A</td>
<td>91.3%</td>
</tr>
</tbody>
</table>

**CONCLUSION**

- The findings of this study suggest that a one-time problem-solving workshop may be feasible and effective for parents of children diagnosed with LOTS.  
- The initial pilots in the workshop is believed to have helped facilitate children’s short-term gains on outcome measures.  
- Although the outcomes are preliminary, they suggest that there may be important benefits to teaching children problem-solving skills and helping parents to coach their children in learning skills to deal with LQTS-related problems.  
- The preliminary results also offer some indication about the potential effectiveness of the intervention.  
- Results demonstrate that continual support and review of problem-solving skills is likely necessary to facilitate long-term gains of problem-solving, coping, and adaptive skills.  
- It is suggested that future workshops provide parents with guidelines on how to reinforce the use of problem-solving skills, which may include telephonic coaching of problem-solving skills at 1- and 3-months post-workshop.

**ACKNOWLEDGEMENTS**