

MATERNAL PROBLEM SOLVING SKILLS TRAINING
IN CHILDHOOD CANCER (CR01):
INSTRUCTOR'S MANUAL

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Table of Contents

Section	Page
Introduction	1
Program Description	1
Program Format	2
General Clinical Guidelines.....	5
Clinical Pitfalls to Avoid	7
Introduction of the Problem-Solving Skills Training Program to the Parent	7
Importance of Participation.....	9
Overview of the Process of Problem-Solving Skills Training.....	9
Problem-Solving Step I: Problem Orientation (Learning Optimism: Bright IDEAS)	14
Problem-Solving Step II: Problem Definition (Identify the Problem).....	19
Problem-Solving Step III: Generation of Alternative Solutions (Define Your Options)..	22
Problem-Solving Step IV: Decision Making (Evaluate Your Options)	23
Problem-Solving Steps V & VI: Solution Implementation and Solution Verification (Act Out Your Choice and See If It Worked)	25
Relapse Prevention	26
References.....	29
Appendix I. Parent Recruitment Script.....	31
Appendix II. Parent Handouts - Listing.....	33
Problem-Solving Steps <u>Parent Manual</u>	34
Appendix III: Guidelines for Instructors: Training Sessions.....	55
Appendix IV: Guidelines for Instructors: Problem-Solving Steps.....	61
Appendix V: Practice Example (Instructor's Version).....	64

Introduction

Mothers of children diagnosed with cancer have been found to be at increased risk for psychological distress, including post-traumatic stress symptoms.^{3;4;5;6} In addition to the traumatic stress associated with experiencing a life-threatening disease diagnosis in their child and witnessing their child undergo recurring toxic medical treatments and painful procedures⁷, parents must also cope with multiple concurrent stressors associated with cancer treatment including significant immunosuppressive patient morbidity (e.g., sepsis, viral infections), family members' morbidity, occupational changes, financial strain, and the daily hassles of everyday living which take on greater stress appraisal given the child's serious medical condition.^{8;9} Further, gender and role differences affect the ways that mothers and fathers cope which may lead to marital strain. For instance, mothers prototypically strive for supportive open communication and socioemotional support, and are often emotionally expressive, whereas fathers prototypically strive to be stoic and may express their distress through anger reactions and/or working more intensely^{10;11}. Mothers are also more likely to assume the major responsibility for their child's medical care, and need to learn a whole new culture associated with hospitalizations, multiple clinic visits, and even providing medical care at home. Mothers may be torn between providing the intense support their ill child requires, with the burden of maintaining care of the patient's siblings, who may feel rejected, isolated, and a loss of maternal support. Thus, multiple life events and ongoing daily stressors challenge mothers whose children are newly diagnosed with cancer.

Program Description

This maternal problem-solving skills training intervention was designed to meet the needs of mothers of children with newly-diagnosed cancer. The problem situations

included in this cognitive-behavior therapy treatment manual are representative of actual problematic situations that parents must cope with during their child's diagnosis and cancer treatment.

The six components of the problem-solving skills training intervention are based on the extant literature, and include: 1) Problem Orientation, 2) Problem Definition and Formulation, 3) Generation of Alternative Solutions, 4) Decision Making, 5) Solution Implementation, and 6) Solution Verification. The original D'Zurilla ¹² five component model has been modified to a six component model by delineating the original Solution Implementation and Verification step into two separate steps (Solution Implementation and Solution Verification).

Program Format

This problem-solving skills training program has been designed to be conducted in individual sessions with the child's mother. Although a group format is possible, it is typically more convenient for the mother to schedule the instructional sessions during regularly scheduled clinic appointments for medical treatment or during her child's extended hospitalizations, which consequently makes it very difficult to consistently bring together a small group. Since the instructional sessions are individualized, the entire intervention program is conducted in eight 1 hour instructional sessions over an eight week period. The formats for each assessment and training session are standardized, and are outlined in Tables 1 and 2.

TABLE 1
ASSESSMENT SESSIONS FORMAT

Assessment Time 1 (One week Pre-treatment)

1. Obtain informed consent if not already completed.
2. Administer the Demographic Information Form using a semi-structured interview.
3. Administer the SPSI-C, BDI, POMS, CPI, and CKQ through self-report (in the listed order).
4. Determine the randomization status of participant without first reviewing the self-report instruments.
5. Determine the date for the next session:
 - Approximately 1 week
6. Arrange for childcare for the next session (patient and siblings if needed).
7. Discuss reimbursement as a token of appreciation for participation and time commitment.

Assessment Time 2 (at completion of Treatment; 7-9 weeks after Time 1 Assessment)

1. Administer the SPSI-C, BDI, POMS, and CPI. Administer Satisfaction Survey and Parent Progress Rating Form to Treatment Mothers; complete RA Progress Rating Form for each treatment mother.

Assessment Time 3 (3 months after last Treatment session; 17-23 weeks after Time #1)

1. Administer the SPSI-C, BDI, POMS, CPI, and CKQ.
2. Arrange for stipend to be given.

Note: SPSI-C = Social Problem-Solving Inventory-Cancer; BDI = Beck Depression Inventory; POMS = Profile of Mood States; CPI = Current Problems Inventory; CKQ = Cancer Knowledge Questionnaire.

TABLE 2
TRAINING SESSIONS FORMAT

Training Sessions #1-3

1. Introduction to Problem-Solving Steps
2. Present Problem Orientation Philosophy (Learning Optimism: Bright **IDEAS**)
3. Define Problem Definition and Formulation (**I**dentify the Problem)
4. Describe Generation of Alternative Solutions (**D**efine the Options)
5. Delineate Decision-Making Process (**E**valuate Options)
6. Describe Solution Implementation (**A**ct Out Your Choice)
7. Describe Solution Verification (**S**ee If It Worked)
8. Apply Problem-Solving Steps to Selected Vignette in Bright **IDEAS** Booklet
9. Review Current Problems Inventory to Facilitate Problem Identification
10. Discuss Parent Worksheets
11. Begin Problem-Solving Process with Selected Problem
12. Designate Homework Assignment
13. Give Overview of Format for Subsequent Sessions

Training Sessions #2-3

1. Review Session #1
2. Review Homework Assignment
3. Apply Problem-Solving Steps to Selected Problem
4. Steps 3-12 (w/o 8) for Unresolved Problem or New Problem

Training Sessions #3-8

1. Review Session #1
2. Review Homework Assignment
3. Apply Problem-Solving Steps to Selected Problem
4. Steps 3-12 (w/o 8) for Unresolved Problem or New Problem

Training Sessions #3-8

1. Review Homework Assignment
2. Steps 3-12 (w/o 8) for Unresolved Problem or New Problem

Last Treatment Session

1. Review Homework Assignment
2. Administer Time 2 Assessment
3. Discuss Relapse Prevention Strategies
4. Discuss Time 3 Assessment and Stipend

General Clinical Guidelines

Establishing the parent-instructor relationship is the essential first step in conducting problem-solving skills training (PSST). Emulating warmth, empathy, trust, and genuineness sets the context for the parent's receptivity to learn the specific problem-solving strategies. Further, emphasizing the collaborative nature of the PSST approach enhances the parent's perception that the instructor is treating the parent as an individual, and needs the parent's active cooperation to make PSST relevant and effective in addressing the parent's needs. Thus, engaging parents in an active collaborative partnership requires a level of parental participation that facilitates the learning of the PSST by immediately personalizing the application of the strategies to the parent's problem. This mutual collaboration fosters a sense of teamwork, where the instructor contributes general strategies and the treatment approach to problems and the parent brings all the information and details unique to her experiences. The sense of collaboration and expectation that the parent is facing solvable problems is heightened by acknowledging that problem-solving is an integral part of everyday life which the parent handled adequately until faced with the relatively unique catastrophe of childhood cancer which interferes with and strains usual coping mechanisms and support networks.

In this spirit of collaboration and shared expertise, the parent's manual should be introduced as a method to facilitate the parent's enlisting of the problem-solving strategies in an independent and ongoing application to everyday problems she must face. The homework assignments are also described in this spirit of collaboration, where the instructor and parent can brainstorm solutions and troubleshoot barriers

together based on the outcome of the previous week's efforts as recorded on the homework sheets. Thus, problem-solving is presented as an eminently socially interactive interchange.

In the process of identifying problems to solve, brainstorming solutions, and troubleshooting barriers to solution implementation, it is essential to utilize active listening techniques. These **active listening techniques** include:

1. **Gently probe and clarify.** Ask the parent in the spirit of collaborative empiricism (i.e., Socratic questioning) the specific details of a problem, solution, or barrier. Examine and refine the parameters of each problem, solution, or barrier together. This iterative back and forth way of gently questioning and then asking for clarification will elicit more complete information and result in a mutual gain in understanding.
2. **Paraphrase.** Restate what the parent has just said and ask whether it has been heard and restated correctly. Use paraphrasing to check whether you understood the parent accurately and to illicit more information from the parent in correcting any misinterpretations.
3. **Listen with Empathy.** Empathetic listening entails attending to the parent's statements with a warm gentle demeanor and shows your concern about how the parent feels about the problem to be solved.
4. **Summarize.** Integrate the key points, ideas, major facts, and issues and ask the parent whether this integration represents an accurate summary of the information.

This process of active listening should be conducted in the context of not interrupting the parent, maintaining good eye contact, leaning slightly forward toward

the parent, and generally presenting a receptive and socially engaging physical demeanor. Throughout this process, emphasize a commitment to nonjudgmental, trusting, open two-way communication. This is the essence of the collaborative empirical approach indigenous to PSST. Finally, work closely with the parent in writing down in the parent handout charts the specific details of problematic situations and potential solutions. This is a very concrete way of engaging in collaborative empiricism.

Clinical Pitfalls to Avoid

In implementing problem-solving skills training, it is important to be aware of several shortcomings which can limit the efficacy of the intervention.

1. PSST is presented in a mechanistic or rotelike manner. While adhering to the instructor's manual is essential, it is also vital to present PSST with an engaging, enthusiastic style that draws in the parent. The interpersonal and collaborative nature of PSST needs to be established from the very beginning.
2. PSST is not made relevant to the parent. The parent needs to feel that this approach will be addressing the specific problems that she is facing now and in the near future.
3. Homework is not incorporated into the sessions. It is crucial that parents value the homework assignments. The instructor must discuss in detail the homework assignments at the beginning of each session, emphasizing the importance of home practice and record keeping as essential components of learning PSST.

Introduction of the Problem-solving skills training Program to the Parent

1. Introduce yourself if you are not known by the parent, for example:
 - “Hi, my name is _____, and I'd like to give you more information about the problem-solving program we are offering mothers.”

2. Explain generally what the problem-solving strategies are, for example:
 - “What we mean by problem-solving are specific strategies that help parents clearly identify and solve those conflicts, decisions, or problems they face in a way that can be more effective than what all of us usually do to deal with problems or make decisions.”
3. Provide the parent with a more specific explanation, for example:
 - “We’ll work together to identify those specific situations that you find challenging, and then develop a plan to address each one individually.”
 - “We’ll practice some very specific ways to resolve these challenges that have been shown to be highly effective.”
4. Describe the basic steps used to solve problems more effectively, for example:
 - “First, we’ll identify specific problems, conflict, or difficult decisions you are facing now.
 - Then, we’ll brainstorm together some ways to resolve your identified problems.”
 - “The next step will be to plan how you can try out your solution idea.”
 - “Finally, we’ll work together to see if it worked out to your satisfaction.”
 - “Please remember at all times, you can do this. These are problems which can be solved to your satisfaction.”
5. Be certain to emphasize enthusiastically throughout all problem-solving sessions the concept of learned optimism and skilled persistence, for example:
 - “The key to being successful in overcoming challenges you are facing is to always remember that you can do this! While it may be difficult, you can solve most of these problem, conflicts, and decisions to the point that you will be satisfied with the result. It takes believing that you can and learning what you have to do in order to overcome these challenges.”

Importance of Participation

It is essential that parents be informed of the value intrinsic to participation in the problem-solving skills training program. This process can be facilitated by describing to parents the experiences of other parents who have had to cope with the diagnosis and treatment of childhood cancer. Specifically, going over the Current Problems Inventory verbally as illustrative of anticipated challenges may help a parent create a vision of what lies ahead in terms of ongoing problems, decisions, and potential conflicts. By offering a methodology or template to address these challenges, and by assuring parents that these problem-solving strategies have been shown to work in published research, the parent may be more likely to consent to participation if they perceive the intervention to be both relevant to their current situation and effective. Throughout, it is essential to emphasize to the parents that they can learn to become even more effective problem-solvers, irrespective of what their pre-intervention problem-solving skill level was prior to their child's cancer diagnosis.

Overview of the Process of Problem-solving skills training

Process 1: Define the Rationale Behind Problem-solving skills training

At the initial stage of instruction, the parent needs to be given the purpose or rationale for learning the targeted skills. The parent is provided with information about the usefulness and inherent advantages of each problem-solving strategy in order to be successful problem-solvers. Thus, the parent needs to be provided with information about the value of problem-solving skills based on the potential positive consequences and benefits of having these skills in her repertoire as they apply to coping with childhood cancer. Additionally, it should be emphasized that problem-solving is an inherently socially interactive process which teaches people to work together collaboratively in brainstorming new ways to resolve problems.

Process 2: Define the Skills to be Taught

In addition to describing the reasons why the problem-solving skills are valuable, the instructor also presents in detail the specific cognitive-behavioral components of each skill. Verbal and written instructions are provided to specify in concrete terms exactly what cognitions and behaviors are required and how they need to be performed in order to accomplish problem resolution. A hypothetical situation is described to the parent along with guidelines on how to act, what to say, and when to say it. An actual script or dialogue is presented to the parent to convey exactly what behaviors are required. When the cognitions and behaviors are specified in exacting detail, the parent is more likely to be able to perform the necessary problem-solving skill.

Verbal and written instructions help break down the overall skill into separate cognitive and behavioral components that can be identified and learned. These instructions from the instructor specify exactly the components that need to be performed in order for the parent to be a successful problem-solver. However, although instructions are an essential initial introduction to problem-solving skills, they are not sufficient by themselves to enable the parent to perform the skills on a day-to-day basis.

Process 3: Modeling

Modeling by the instructor provides direct examples of the problem-solving components and elucidates the problem-solving strategies for the parent. A combination of modeling by the instructor along with detailed instructional handouts and parent *in vivo* practice provides the integrated learning experience needed to acquire the subtleties of skill performance. Instructor modeling affords flexibility in illustrating or highlighting particular aspects of the problem-solving skills process.

Further, modeling depicts in vivid detail the cognitive and behavioral processes intrinsic to problem-solving that verbal and written instructions alone cannot convey.

Process 4: Behavioral Rehearsal

Behavioral rehearsal is a form of structured role playing that enables the parent to act out and practice the problem-solving process just modeled. After the parent observes the instructor model the cognitive self-instructions and behavioral components intrinsic to the particular problem-solving skill, the instructor then sets up an illustrative problematic situation in which the parent is given the opportunity to rehearse or practice the specific cognitive and behavioral components of the problem-solving process during the session.

Process 5: Performance Feedback

Performance feedback is defined as providing the parent with detailed information on how well she has enacted the specific cognitive and behavioral components during behavioral rehearsal. After the parent rehearses the designated problem-solving skills, performance feedback is provided immediately by the instructor, consisting of three components. **Social Reinforcement** (e.g., praise, approval) is first given for those cognitive and behavioral components correctly performed by the parent. The parent should be enthusiastically complimented (e.g., "That's great! Good job. Nice") for the correct performance of the cognitive and behavioral components, thereby providing encouragement and motivation to continue behavioral rehearsal. After reinforcing the parent for correct performance of specific cognitive and behavioral components, then the instructor gives the parent Corrective Feedback on those components which were performed incorrectly. **Corrective Feedback** should always be given after social reinforcement for correct performance since the parent will then be more likely to be responsive to corrective feedback if she

has already received positive feedback about her performance. **Coaching** provides verbal cues or prompts for the performance of correct skill performance. Coaching is combined with corrective feedback to provide detailed information to the parent on which components of the behavioral rehearsal need to be fine tuned or improved, and what might be done differently to enhance cognitive and behavioral performance.

The performance feedback provided after the just emitted behavioral rehearsal is used as the basis for rehearsing the problem-solving skill again. Particularly when the parent's behavioral rehearsal is mostly incorrect, performance feedback may also be followed by further modeling by the instructor of those cognitive and behavioral components needing improvement. The parent then rehearses the components again and the sequence of feedback/rehearsal continues until the instructor judges that criterion performance has been achieved. In sum, social reinforcement and corrective feedback provide immediate information on what aspects of the behavioral rehearsal need to be refined or changed, while coaching provides the verbal cues or instructions which describe for the parent how to improve and fine tune those aspects of the skill rehearsal which were incorrectly performed.

Process 6: Generalization and Maintenance

As discussed in the performance feedback section, the parent is first expected to practice the cognitive and behavioral components of problem-solving during the training session with the instructor. This behavioral rehearsal, accompanied by social reinforcement, corrective feedback, and coaching is continued until an acceptable level of proficiency is attained. Once this performance standard is reached, **generalization** of the skill to the natural environment **must be programmed**.

Generalization, or transfer of learning, is an essential component of the problem-solving skills training program. It ensures that the newly acquired problem-

solving skills are applied in appropriate situations in the parent's everyday environment. Generalization across hospital, home, and other situations, as well as generalization across time (maintenance) is the true test of the success of the training intervention. The social validity of the parent's newly established skill repertoire depends on the fact that the skills are effectively utilized by the parent in appropriate situations outside the training setting.

Generalization does not naturally occur as a result of learning the skills taught during the training sessions. Rather than the "train and hope" approach where transfer of learning is not specifically planned but is passively hoped for as a function of simply teaching the new skill, generalization must be a planned component of each skills training session. Thus, specific programming needs to be built into the skills training intervention to facilitate the generalization of the skills to different settings and different people over time. For newly learned skills to transfer from the training setting to the natural environment, carefully planned structured **homework practice assignments** must be incorporated into each training session. These homework practice assignments are precisely organized behavioral rehearsal opportunities for the parent to attempt the newly learned problem-solving skills in various settings, with different people, at different times. Thus, generalization training requires an active role on the part of the instructor and must be programmed into the teaching situation.

In addition to programming generalization across situations and people, maintenance is enhanced by the ongoing collaboration between the parent and the instructor, whereby the instructor reinforces and encourages the parent's utilization of the newly learned problem-solving skills in the natural environment. Finally, teaching the parent specific self-reinforcement and positive cognitive self-instructional procedures further optimizes generalization and maintenance. Even though problem-

solving skills can be programmed to generalize over time, persons, and settings, it may still be necessary to provide additional instructional sessions to make sure that the parent's problem-solving skills repertoire continues to be relevant to situations in the parent's environment.

In conclusion, the multifaceted problem-solving skills training package just overviewed is designed to combine the advantages and to circumvent the limitations of any single technique. The cognitive-behavioral treatment package encompasses a teaching approach that uses antecedent events (verbal instructions, live modeling), direct behavioral performance by the parent of the designated skill (behavioral rehearsal, home practice), and contingent consequences (social reinforcement, corrective feedback). By combining these different training modalities, the learning opportunity for the parent is enhanced. Furthermore, the flexibility of the various components of the training format allows for individualized instruction in order to address the immediate needs of any given parent during the course of treatment, and to tailor the instruction as the parent encounters new problematic situations.

Each step of the problem-solving process is described in detail below as it has been explicated by D'Zurilla, and Nezu and Nezu. In parentheses in each heading is the step as it is presented in the parent booklet "**Bright IDEAS.**" Table 2 also presents these two frameworks.

Problem-Solving Step I: Problem Orientation (Learning Optimism: Bright IDEAS)

Problem orientation involves the cognitive appraisal that having to cope with numerous problems, decisions, and challenges associated with the diagnosis and treatment of childhood cancer is common and normal for this extraordinary life event, and that these challenges can be surmounted and resolved through the systematic problem-solving approach. It is essential to emphasize to parents that while the

diagnosis of childhood cancer is not within their control, there are a myriad of potentially solvable problems which accompany the diagnosis and treatment of childhood cancer. The primary focus, therefore, of the problem-solving intervention is to identify and target those aspects of the diagnosis and treatment process that are within the control of parents.

From this perspective, parents need to be reassured that while the emotional distress associated with the diagnosis of childhood cancer will most likely always be present, the intensity of their distress will lessen as they overcome multiple problems and challenges that are within their control to resolve. Parents need to be instructed that feelings of depression, anxiety, and anger may be in part explained by all the everyday problems and decision-making challenges they must confront, and that these emotions should serve as cues that they may be feeling frustrated by unresolved conflicts and problems (i.e., The Thinking/Feeling Connection). Thus, the emphasis is on the delineation of those characteristics of the diagnosis and treatment process which are modifiable, or if not directly modifiable, are at least reduced in impact by modifying the cognitive processes which elicit the emotions associated with unresolvable problems.

In essence then, the overall problem-solving skills training approach involves both problem-focused coping and emotion-focused coping strategies to optimize parental adjustment to a devastating life event. **Emotion-focused coping** involves efforts directed at regulating the emotional responses to a problem or stressful situation, rather than attempts at solving the problem itself. **Problem-focused coping** refers to efforts directed at trying to solve the problem by managing or changing the problem or stressful situation, rather than attempts to specifically regulate the emotional distress in response to the problem. Since there will be aspects of the

disease and treatment which are not completely in the parents' control, then helping them to alter their cognitive appraisal of certain problematic situations may ameliorate some of the emotional distress they are experiencing.

The specific objectives of the problem orientation step are as follows:

1. To increase the parent's awareness of specific stressful problem situations.
2. To enhance positive problem-solving thoughts and to reduce negative self-statements (Automatic Thoughts Fog) when problems or obstacles are encountered.
3. To minimize emotional distress which interferes with constructive problem-solving efforts.
4. To maximize problem-solving effort and learned persistence when barriers and emotional distress are experienced.

To achieve these objectives, the problem orientation process consists of six specific aims:

1. **Problem Perception:** To facilitate the parent's accurate identification and recognition of problems when they are experienced. It is essential at this stage to emphasize that the parent needs to identify the specific stressful situation as the problem, not the emotional distress which may accompany the obstacle encountered. This fundamental principle facilitates the accurate identification of the exact characteristics of the problem situation rather than focusing on the reactive emotional distress. At this point, it is important to emphasize to the parent that their emotional distress should serve as a cue that they are faced with a stressful problem situation or challenge. Focusing on the emotional reaction as the problem will only derail attempts to recognize accurately what are the parameters which have caused the emotional distress. Thus, it is fundamental at this step that the parents not label their emotional distress as the problem, but rather use

their emotional distress as a cue that they need to identify the specific stressful obstacle, conflict, decision, or challenge that is eliciting their negative feelings.

The exception to this strategy of considering emotional distress solely as a cue that a problem needs to be resolved occurs when it has been determined that the identified problem is truly unmodifiable. If after a careful delineation of the problem and potential solutions warrant the conclusion that there are no possible solutions to the identified problematic situation, then emotion-focused coping will be the preferred intervention strategy for the identified emotional distress. Thus, emotion-focused coping strategies rather than problem-focused coping strategies are the preferred problem-solving approach when the problematic situation is realistically and accurately appraised as unchangeable. Emotion-focused coping skills include cognitive restructuring, positive self-statements, relaxation/meditation, guided imagery. Problem-focused coping skills include interpersonal assertiveness, effective communication, conflict management, parenting techniques. In sum, problem-solving skills training includes both problem-focused coping when a situation is potentially changeable, as well as emotion-focused coping when a situation is not changeable (e.g., the fact that the parent's child has cancer and has to take toxic chemotherapy which has deleterious side effects).

2. **Problem Attribution:** To foster the overall belief that problems associated with the diagnosis and treatment of childhood cancer are normal and inevitable. At this step, it is vital that parents neither blame themselves for all encountered problems, nor ascribe all responsibility for problems to others. Rather, an attribution style that recognizes the interactive nature of problem situations signals the need to identify both intrapersonal and interpersonal variables as factors. For a given problem situation, the parent, others, or a combination of both may exacerbate a

particular obstacle or conflict. Accurate attribution of the causes of a problem will facilitate the generation of subsequent problem-solving strategies.

3. **Problem Appraisal:** To help parents develop a realistic appraisal of the threat to well-being associated with the problem, decision, or conflict. The aim is to facilitate the accurate perception of the importance of the situation, neither minimizing nor magnifying its significance. Magnification would be a cognitive error or distortion which results in an overemphasis of a relatively nonsignificant event's importance while minimization is an underestimate of a significant event's importance. Cognitive misappraisal associated with minimization or magnification of an event's significance can result in ineffective problem-solving efforts by causing a misformulation during the problem identification process. A positive appraisal of the event views it as a challenge to overcome, whereas a negative appraisal results in the perception that the problem is harmful or threatening. Perceiving the situation as harmful or threatening increases the probability of the parents' developing an emotional distress reaction to the event.
4. **Personal Control:** To develop a learned optimism cognitive perspective that problems are solvable or controllable, and that parents can learn specific problem-solving strategies to resolve difficult situations. Thus, the aim is to promote a personal sense of self-efficacy in parents which engenders a belief that they have the skills to resolve problems now and in the future after acquiring specific problem-solving strategies. Since some problems are unchangeable, parents in those circumstances would be instructed to utilize emotion-focused coping as the problem-solving strategy, i.e., to focus on changing their emotional reaction to an unchangeable or uncontrollable situation or event.

5. **Approach/Avoidance Style:** To encourage parents to approach or confront a problem rather than to avoid it. Parents need to learn that to avoid or to deny that a problem exists when it does will only lead to greater problems and exacerbate emotional distress.
6. **Time/Effort Commitment:** To increase the recognition that successful problem-solving takes time and effort. Parents need to be instructed that when confronted with a difficult situation, they should not react impulsively or automatically, but rather stop and think before responding. A systematic, measured approach will greatly increase the probability of a positive outcome. Parents should be reassured that the combination of a skilled problem-solving approach in combination with learned persistence in the face of obstacles will enhance their chances of resolving the difficult situation they face.

Problem-Solving Step II: Problem Definition and Formulation (Identify the Problem)

The accurate and precise conceptualization and definition of the problem, conflict, or decision to be made is a vital and essential step toward resolving the challenge. A clearly operationalized problem will greatly facilitate the subsequent generation of relevant problem solutions, effective decision-making, and accurate solution verification and outcome assessment. The objective of the problem definition and formulation step is to articulate a clearly defined problem through achieving five specific aims:

1. **Gathering Information:** To instruct parents on the importance of seeking specific, concrete, objective, unambiguous facts pertaining to the problem situation, as well as distinguishing relevant versus irrelevant information.

2. **Constructing Clear and Unambiguous Definitions:** To emphasize how essential it is to define the problem precisely in terms that are very objective and operational. Global or vague definitions of the problem need to be reformulated into simpler, concrete, specific language.
3. **Minimizing Cognitive Distortions:** To avoid forming a biased or distorted perception of the problem. When parents define a problem based on cognitive misperceptions, it is highly unlikely that they will be able to eventually resolve the problem. Thus, parents may process information by making cognitive errors in the evaluation and judgment of the facts by misinterpreting their meaning. For instance, a parent may arrive at a conclusion by misinterpreting the motives, intentions, or feelings of others by making cognitive errors in social-information processing. A parent may overselectively give attention to certain components of the problem, while ignoring other important facts that are essential in problem resolution. This type of cognitive error occurs when attempting to evaluate the relevancy of information components. It can lead to overgeneralization based on incomplete facts. Parents may engage in magnification, when they exaggerate the value, intensity or significance of a problem component (e.g., catastrophizing), or they may engage in minimization by inappropriately devaluing or reducing the significance of a problem component (e.g., denying its importance). Finally, parents may overestimate or underestimate antecedent-consequences cause-effect relationships. These cognitive errors may in fact exacerbate existing unresolved problems by focusing on the negative rather than the positive aspects of certain situations, causing parents to be overwhelmed by “pseudoproblems.”
4. **Understanding the Problem:** To identify specifically what are the characteristics of the situation that result in a discrepancy between the demands involved and the

parents' available coping responses. The parents may be experiencing a discrepancy between what they expect (what should be) versus what is the circumstance they face, with an accompanying inability to achieve what they expect as the desired outcome. In order to begin to resolve this discrepancy, the parents must specify:

- What precisely is unacceptable about the situation.
- What changes are expected or desired.
- What obstacles are preventing them from resolving this discrepancy (e.g., lack of information, emotional distress, skill deficit, conflicting demands, interpersonal conflict).

In sum, the primary aim of this component is for the parents to analyze the information they have gathered together and to formulate exactly why the situation is a problem for them.

5. **Setting Goals:** To help parents delineate the overall desired outcome of the problem situation. It is essential that parents describe their goal in (1) concrete, specific terms, and (2) identify realistic and potentially attainable goals and objectives. Accurate goal setting greatly facilitates the process of subsequently generating alternative solutions which are relevant and appropriate for resolving the problem situation, and are amenable to precise evaluation of problem solution outcome.
6. **Dismantling Complex Problems:** To prevent parents from being overwhelmed by complex problems through helping them avoid overly global descriptions of the situation. Helping parents break complex problems into subproblem components will greatly promote the parents' appraisal that the seemingly unwieldy problem situation is in fact a challenge that can be overcome by dismantling it into its

solvable component parts. Additionally, the first identified problem might in fact be a consequence or result of an unresolved antecedent problem which needs to be addressed prior to resolving later problems in the antecedent → consequences chain of events.

Problem-Solving Step III: Generation of Alternative Solutions (Define Your Options)

The primary function of this problem-solving step is to produce through brainstorming a number of high quality potential solutions to the problem situation. Basic principles for generating alternative solutions to maximize the search for the best or most effective strategy are emphasized:

1. **Quantity Principle:** To encourage parents to produce as many solution alternatives as possible in order to increase the likelihood that the best or most effective solution will be among these alternatives. Parents should be informed that often the best solution generated is not initially produced, but is discovered after some brainstorming.
2. **Deferment-of-Judgment Principle:** To instruct parents that more high quality solutions will be produced if they reserve their evaluation of these strategies until the decision-making step. During the process of generating alternatives, more imaginative and creative strategies will be produced if they do not critically evaluate each one until an exhaustive list of possible solutions has been compiled.
3. **Variety Principle:** To inform parents that the greater the variety, diversity, and originality of their solution possibilities, the more likely high quality strategies will be embedded among them. Additionally, by generating a myriad of potential solutions, parents are more likely to break old habits or conventional ways of solving problems which were not as effective in the past. Responding to the

problem situation automatically by utilizing previous habits without stopping and thinking through new possible solutions will short circuit the generation of potentially more effective and novel strategies.

4. **Strategies-Tactics Procedure:** To instruct parents to group potential solutions into strategy categories, and then to generate more specific tactics for each strategy category in order to maximize potential effective implementation. Parents should be encouraged to look over their list of strategies and tactics, and to create new ones by combining, modifying, and elaborating the ones initially produced. This iterative process has the potential to further aid in creating novel approaches to problem resolution.

Problem-Solving Step IV: Decision Making (Evaluate Your Options)

Making a decision about the “best” strategy to try out in order to solve the problem situation requires a conscious cost/benefit analysis on the part of the parent. Thus, the objective of the decision-making step is to detail for parents the process needed to make an informed, wise, and appropriate choice which maximizes the probability of a positive outcome. The specific aims of the decision-making step are:

1. **Cost/Benefit Analysis:** To conduct a rational/logical cost/benefit analysis which incorporates an evaluation of the value and likelihood of an anticipated outcome as a result of selecting a particular solution alternative. Since all of the cost and benefits associated with a given alternative may not be known, a reasonable estimate needs to be conducted by:
 - 1) Screening the list of alternative solutions and eliminating those that are clearly:
 - a) Not feasible because of perceived lack of skill or available resources to implement them optimally.
 - b) Unacceptable because of the high likelihood of negative consequences.

Seeking more information in order to make an informed choice should be highly encouraged if the parent is unsure about the requisite skills or resources that are required to successfully implement a given solution alternative. Additional information may also help eliminate a solution alternative that would be too costly to carry out or beyond the parent's ability to implement. This cost/benefit analysis should also include both the short-term and long-term costs and benefits of each solution alternative being considered.

After evaluating the relative cost/benefit ratio of each alternative, the parents are instructed to judge the anticipated or expected outcome of each, to compare each likely alternative/outcome match, and then to select the solution alternative or combination of solution alternatives which best maximize the achievement of the desired outcome.

2. **Outcome/Utility Analysis:** Judgments of the expected outcome or utility in selecting an alternative or combination of alternatives are based on:
 - 1) **Problem resolution**, i.e., the likelihood of achieving the problem-solving goal.
 - 2) **Emotional well-being**, i.e., the quality of the expected emotional outcome in making a particular choice.
 - 3) **Time/effort commitment**, i.e., the amount of time and effort anticipated to be required in implementing the choice.
 - 4) **Overall personal-social well-being**, i.e., the effect that implementation of the alternative will have in the balance between total expected benefits and total expected costs, both long-term as well as short-term personal consequences (effects on parent) and social consequences (effects on others). In essence, the

parent at this point needs to look at the bigger picture (metaperspective), and decide on a choice that takes into consideration all possible short-term and long-term outcomes of a decision, both positive and negative.

**Problem-Solving Steps V & VI: Solution Implementation and Solution Verification
(Act Out Your Choice and See If It Worked)**

An action plan is developed and the actual implementation of the “best” solution alternative selected in the previous step is carried out at this point, and subsequently verified for its effectiveness in achieving the desired outcome. Five component aims are involved in this process:

1. **Action Plan:** To delineate the specific steps needed to carry out the solution choice prior to actual implementation.
2. **Solution Performance:** To apply the problem-solving coping strategy to the identified problem, conflict, or decision to be made. If in the actual implementation of the parent’s solution plan unanticipated obstacles arise (e.g., skill deficit, elevated emotional distress, lack of cooperation from others), then the parent should:
 - 1) Cycle back to previous problem-solving steps and consider choosing an alternative solution from the previously developed solution alternatives list or generate a new alternative solution plan all together, or
 - 2) Reformulate the overall problem and include steps to overcome the obstacles to effective solution performance.
3. **Self-Monitoring:** To measure solution implementation and outcome through accurate and objective assessment of solution performance and obtained effects. Parents should be encouraged to develop a checklist or a rating system to monitor their implementation of the solution components.

4. **Self-Evaluation:** To compare the obtained outcome with the desired or expected outcome. If the match between observed and desired outcome is satisfactory, the parent moves on to self-reinforcement. If the parent is not satisfied with the match between expected and obtained outcome, then the parent is instructed to troubleshoot the mismatch by attempting to determine whether the source of the difficulty in achieving the expected outcome lies with the previous problem-solving steps (e.g., misspecification of the problem or alternative solutions) or is in the performance of the solution plan (e.g., skill deficits, obstacles). At this point, the parent may choose to cycle back and reformulate, or may decide that more information or expert help is needed.
5. **Self-Reinforcement:** To encourage parents to reward themselves for accomplishing problem resolution or the expected outcome. This may entail verbal self-statements of praise, or actually arranging for a tangible pleasurable activity to reinforce effort and success. It is at this step of accomplishment that the cognitive attribution of “learned optimism” should be strongly encouraged. That is, to help parents recognize that they can control aspects of the process involved with the diagnosis and medical treatment of their child’s cancer.

Finally, if the parent appraises the problem as unchangeable, then the problem must be reformulated and solutions that emphasize acceptance and emotion-focused coping should be developed.

Relapse Prevention

Relapse in the context of problem-solving skills training implies the return to pre-PSST ways of trying to handle problems, conflicts, and decisions. Relapse is essentially going back to strategies utilized prior to PSST. Apart from periodic booster sessions after the training intervention has been completed, the other primary relapse

prevention interventions involve the inclusion of specific strategies to prevent relapse beginning with the first PSST session.¹³

These **relapse prevention strategies** include:

1. Providing parents with **clear detailed handouts** of material taught during the training intervention. This material can be referred to after the PSST intervention has been completed to remind the parents what they have been taught, to elicit positive self-statements, and to engage a self-management orientation.
2. **Identifying high risk situations**, i.e., problematic situations where the parent has prototypically responded in an impulsive manner, not Stopping and Thinking prior to acting. Discuss ways to cope more effectively with these high risk situations for the future.
3. **Using emotional distress as a “red flag”** or cue that the problem-solving techniques taught during the intervention need to be rigorously utilized to address these feelings.
4. Emphasizing to parents the **importance of not becoming complacent**, i.e., gradually lapsing into old ways of coping over time.
5. Enthusiastically **emphasizing the concepts of self-efficacy and learned optimism**, i.e., that the problem-solving strategies work, and that the parent can solve problems successfully by adhering to the principles taught during PSST.
6. **Promoting the concept of “skilled persistence,”** i.e., continuously acquiring the necessary skills to resolve specific problems, and then being persistent until the problem is resolved to the parent’s satisfaction.
7. **A support person** (family member, friend) who will become familiar with the PSST approach should be identified during Training Session #7 (earlier in the

intervention, if desired). The parent should seek this person's help in applying PSST strategies when problems arise.

The key element of the relapse prevention intervention is the preparation for high risk situations.¹³ Essentially, relapse prevention skills need to be built into each PSST session by helping parents identify high risk situations, and teaching them strategies to overcome this increased risk for relapsing into old, potentially maladaptive, coping patterns. Utilize modeling and behavioral rehearsal techniques to make more explicit the ways to implement effective problem-solving coping in those high risk situations identified during PSST. Learned optimism, skilled persistence, and self-efficacy form an integrative metacognitive framework hypothesized to enhance relapse prevention and long-term efficacy of the problem-solving intervention.

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Appendix I. Parent Recruitment Script

After identifying a parent who is eligible for study participation (e.g., through discussions with the Hematology/Oncology team, reviewing new patient lists, and/or medical charts), contact the parent and present an overview of the Project:

1. Introduce yourself if you are not known by the parent, for example:

- “Hi, my name is _____, and I’d like to give you more information about the problem-solving program we are offering mothers that is being funded by a research grant from the National Cancer Institute.”

2. Explain generally what the problem-solving strategies are, for example:

- “What we mean by problem-solving are specific strategies that help parents clearly identify and solve those conflicts, decisions, or problems they face in a way that can be more effective than what all of us usually do to deal with problems or make decisions.”

3. Provide the parent with a more specific explanation, for example:

- “We’ll work together to identify those specific situations that you find challenging, and then develop a plan to address each one individually.”
- “We’ll practice some very specific ways to resolve these challenges that have been shown to be highly effective.”

4. Describe the basic steps used to solve problems more effectively, for example:

- “First, we’ll identify specific problems, conflict, or difficult decisions you are facing now.
- Then, we’ll brainstorm together some ways to resolve your identified problems.”
- “The next step will be to plan how you can try out your solution idea.”
- “Finally, we’ll work together to see if it worked out to your satisfaction.”

5. Emphasize the importance of participation:

- It is essential that parents be informed of the value intrinsic to participation in the problem-solving skills training program. This process can be facilitated by describing to parents the experiences of other parents who have had to cope with the diagnosis and treatment of childhood cancer. Specifically, going over the Current Problems Inventory verbally as illustrative of anticipated challenges may help a parent create a vision of what lies ahead in terms of ongoing problems, decisions, and potential conflicts. Assure parents that these problem-solving strategies have been shown to work in published research. Parents are more likely to consent to participation if they perceive the intervention to be both relevant to their current situation and effective. Throughout, it is essential to emphasize to the parents that they can learn to become even more effective problem-solvers, irrespective of what their pre-intervention problem-solving skill level was prior to their child's cancer diagnosis. Finally, emphasize that as a National Cancer Institute research project, all sessions and questionnaires are **confidential**.

Appendix II. Parent Handouts - Listing

1. Problem-Solving Steps Parent Manual (starts p.34)
2. Parent/Individual Handouts (starts p.49)
 - The Bright IDEAS System for Problem-Solving
 - Parent Problem-Solving Program
 - Learning to Be Optimistic
 - Skilled Persistence
 - Stop and Think
 - The Thinking/Feeling Connection

Problem-Solving Steps Parent Manual

By naturally using problem-solving in everyday life, you "**Stop and Think**" before acting, make well-reasoned choices, and then evaluate the outcome of those decisions. As you become better able to handle conflicts, make informed decisions, effectively manage your time, and solve family and work problems using these techniques, you will become less stressed, more relaxed and calm, and feel more in control. You also will be able to spend more time and energy supporting your child during medical treatment. It's a win-win situation!

The Problem-Solving Process

Through the six-step problem-solving formula and the attached checklists, you will be able to get a handle on the specific problems you have to deal with on a daily basis and find new ways in which you can solve them.

Remember, when solving problems, there may be many possible solutions. You will need to find a solution that fits you and your family. Be sure to share the problem-solving steps with your family.

Disagreements, misunderstandings, and frustrations are a normal part of a family living through cancer treatment. The key is knowing how to resolve these disagreements and conflicts. That is what this program will help you do. You will learn new ways of dealing with everyday problems that will help you cope better with the major decisions about your child's and family's health that really need your full attention.

The Problem-Solving Steps

There are six major steps in the problem-solving process. We will go over them briefly first, and then show you how to use them to solve different problems during your child's illness and medical treatment.

Step 1: Learning Optimism: Bright IDEAS

Learning Optimism means believing that having to face problems during your child's medical treatment is normal, and that you can solve these problems after learning these techniques. Conflicts, problems, and decisions are a daily part of medical treatment; they are common to all families going through this experience. Overcoming these problems is what we will help you learn to do. Whenever you are feeling overwhelmed by all the problems you are facing, remember to "**STOP and THINK**", and say to yourself, "I can do this!" **Learning Optimism** is the first step.

To solve problems successfully, you need to see the problems you are facing as **challenges to overcome and opportunities to succeed**. Being positive will help you develop strategies to help you and your child stay **hopeful and optimistic**.

How much any of us believes we can solve a problem affects how much stress we feel. When we feel that problems have piled up, and are more than we can cope with, we often feel "stressed out," depressed, anxious, pessimistic, hopeless, headachy. But knowing that you can cope with everyday problems will put you on the right track toward helping your child stay positive during the ups and downs of medical treatment. Remember: You **can do** this!

At this point, look at Worksheet 1. This table and those that follow in this manual are expanded versions of each of the steps that makes up the worksheet you will find in the **Bright IDEAS** booklet. As you review Worksheet 1, take a few minutes to make a list of some common conflicts, concerns, and problems you have with your child's illness and medical treatment. Write down the ones which are your biggest concerns right now. Circle the one that you want to start working on first.

Worksheet 1

PROBLEMS TO BE SOLVED CHART

Description of Problem

Problem #1:

Problem #2:

Problem #3:

Problem #4:

Problem #5:

Step 2: IDENTIFY the Problem

Now that you have **Identified** the overall problem you want to start working on, the next step is to clearly **Identify** the details of the problem. Put into words as carefully and precisely as you can, exactly what the specific problem is that you are facing. Be a detective by asking yourself the what, where, when, who, why, and how of the problem. Be a scientist, and list all the elements of the problem. Once you have clearly Identified what the problem is, you can then take the next step.

To fully **Identify** the problem you are trying to solve, you must collect as much information as you need to completely answer the following questions on the chart in Worksheet 2. Write down your answers in Worksheet 2 to help you **Identify** all you need to know to move on.

Worksheet 2

PROBLEM ANALYSIS CHART

Why did you choose this problem?

What is the specific problem situation?

Where does the problem occur?

When does the problem occur?

Who else is involved as part of the problem?

Why does the problem occur?

How do you respond and feel when the problem occurs?

How **optimistic** are you about solving this problem? (Please circle a number)

Not at all optimistic	1	2	3	4	5	Very much optimistic
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Now close your eyes and try to imagine yourself actually in the situation. Analyze your thoughts, feelings, and actions so you can answer the questions accurately and in detail. By writing down your answers, you will gain more insight into those parts of the problem that are most difficult for you to handle.

Step 3: DEFINE Your Options

Many people stop themselves from solving problems by saying they have no alternatives. Develop a list of the three or four potential solutions to the problem you have identified and then write them down in Worksheet 3. Be creative. **Brainstorm.** Stretch yourself. Remember: New ways of solving old problems are always worth trying out.

Look at each alternative solution. Think up as many alternative solutions as you can and write them down for future reference just in case your first choice doesn't give you the result you want. **By coming up with a lot of different solutions, you increase the chance of finding your best solution.** We will help you get started by suggesting some alternative solutions to the problems you will most likely encounter based on the experiences of other parents whose children have received medical treatment for childhood cancer. Later, you will meet other parents like yourself and learn other possible solutions from them. You and your family will also learn how to work together to find even more solutions.

Worksheet 3		
POSSIBLE SOLUTIONS AND EVALUATION CHART		
<i>Problem Specifics:</i>		
<i>Possible Solutions</i>	<i>Evaluation</i>	<i>Rank #1, #2 & #3 Choices</i>
Solution #1:	Likelihood of Achieving: Emotional Well-being: Time/Effort Commitment: Short-/Long-term Costs: Short-/Long-term Benefits:	ρ
Solution #2:	Likelihood of Achieving: Emotional Well-being: Time/Effort Commitment: Short-/Long-term Costs: Short-/Long-term Benefits:	ρ
Solution #3:	Likelihood of Achieving: Emotional Well-being: Time/Effort Commitment: Short-/Long-term Costs: Short-/Long-term Benefits:	ρ
Solution #4:	Likelihood of Achieving: Emotional Well-being: Time/Effort Commitment: Short-/Long-term Costs: Short-/Long-term Benefits:	ρ

The greatest barrier to developing new and effective alternative solutions is **habit**. It is easy to get stuck in the same old rut of trying to solve a problem in the same old way. It's familiar, it's easy to do, and it can often be ineffective. Remember: **There are alternatives** to even the most difficult problems.

Step 4: EVALUATE Your Options

It's time to choose your best solution. Base your decision on your answers to such questions as: (1) Can I really follow through on the decision to try this alternative? (2) What are the chances that it really will solve the problem? (3) Are there any insurmountable barriers to overcome? Remember to use Worksheet 3 to list some possible barriers for each potential solution.

In selecting your first problem-solving action plan, look at each choice on your list. Screen each one based on the following:

1. **Eliminate** right away any alternatives that have too many risks or negative consequences.
2. **Select** two or three possible solutions, and then rank them in Worksheet 3, with number one being ranked as your best choice. As you are deciding, consider the amount of time and effort that you will need to carry out a particular solution. After you have ranked your top choices and selected #1 to act on, be prepared to carry out choice #2, or even #3 if #1 and #2 don't work out as well as you hoped.

Step 5: ACT Out Your Choice

After you have made your first choice, mentally create a detailed action plan on specifically how you are going to implement your choice. Write down your action plan in Worksheet 4. Then, try it out. Actually carry out the detailed action plan you have created and mentally rehearsed.

Step 6: SEE If It Worked

See if it works. Decide if your plan gives you a solution you are satisfied with. If you are not completely satisfied with the result, then troubleshoot the reasons why. You may have to modify your plan or even try out your next choice. If solution #2 is not satisfactory either, try solution #3 or go back to earlier problem-solving steps and make certain that you defined the problem correctly.

Use Worksheet 4 to write out and **assess** the results. This step tells you where you have gone right or wrong. It is important to know that factors other than what you are doing may impact on the results of your action plan. You may or may not have anticipated these factors, so be prepared to problem-solve on the spot if necessary.

Worksheet 4

ACTION AND RESULTS CHART

Action plan:

Action tried:

Result: See if it worked:

How satisfied are you with the result?: (Please circle a number)

<i>Not at all</i>					<i>Very</i>
1	2	3	4	5	

Alternative Solution Chosen If Not Satisfied with the Result:

When you feel totally stifled by your efforts to solve your problems, try the following "**quick check**" steps, which help put your immediate problems in perspective:

1. "**Stop and Think.**"
2. Take a deep breath and calm down.
3. Say to yourself, I can handle this.
4. What is the problem?
5. What are some solutions?
6. What's my first choice?
7. Okay, let's try it out.
8. How am I doing?
9. Is this okay, or do I need to try my next choice?
10. All right, this is going okay.
11. Nice job! You handled this well. You **can do** this!

If the desired result is not achieved after troubleshooting through all the problem-solving steps, then determine whether you need **additional information** or **assistance from a knowledgeable source** such as a friend or professional. When a problem situation appears unsolvable, then attempt to identify which parts of the situation may, in fact, be solvable.

We will take you step-by-step through the strategies for solving each of the common problem situations often faced by families during the medical treatment for childhood cancer.

Automatic Thoughts and Feelings or "What You Think Is How You'll Feel"

Automatic thoughts are thoughts that pop into our heads automatically throughout the day. Being aware of these automatic thoughts will help you become a better problem solver.

To help identify your automatic thoughts, **Stop and Think** the next time you have a strong feeling such as depression, anxiety, anger, or other strong reaction to a problem, conflict, or decision. Ask yourself, “What am I thinking?” Use Worksheet 5 to help you identify the **Thinking/Feeling Connection**.

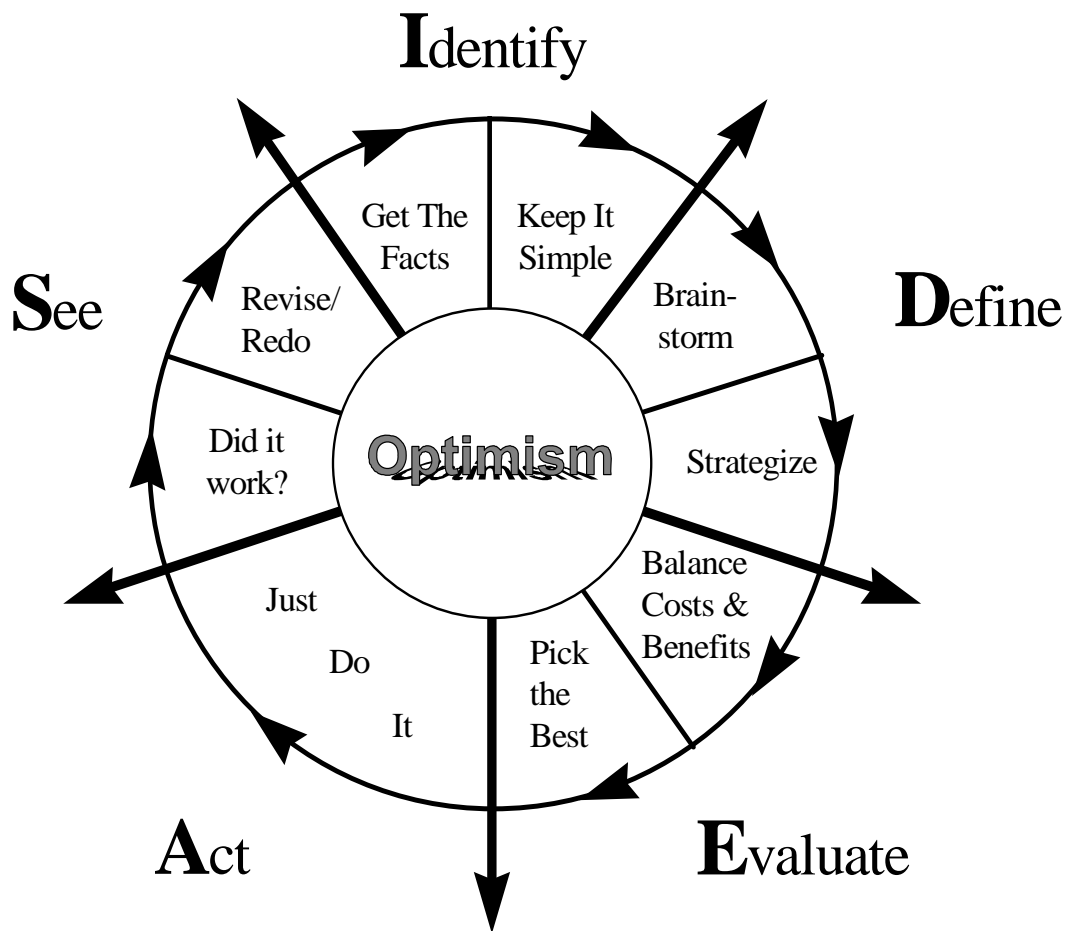
Remember: Automatic thoughts are what go through your mind just before you feel a certain way.

Worksheet 5		
IDENTIFYING AUTOMATIC THOUGHTS AND FEELINGS		
Problem, Conflict or Decision	Your Feelings	Your Automatic Thoughts

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2. Parent/Individual Handouts (Starts on next page)

The Bright IDEAS System for Problem-Solving



I dentify the problem

Define your options

Evaluate your options

Act out your choice

See if it worked

Parent Problem-Solving Program

Goals:

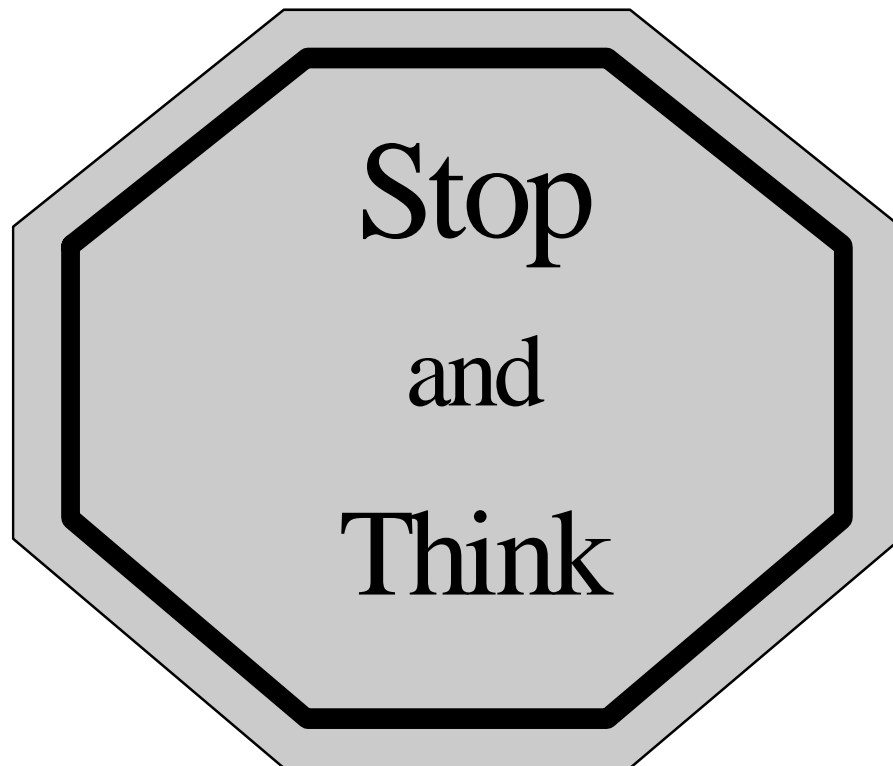
- Help parents learn new ways to solve problems, resolve conflicts, and make effective decisions.
- Teach parents how to control the controllable.
- Teach parents the thinking/feeling connection.
- Help parents feel better during an extremely difficult time.

Learning to Be Optimistic

- Look for the positive.
- Hope for the best.
- Believe you can overcome this difficult challenge.
- Be upbeat in spite of how hard this is and boost your mood.
- Being optimistic is contagious—it will boost your child's mood too!

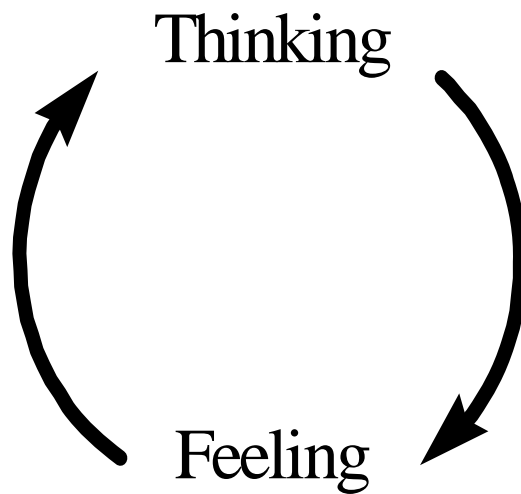
Learn Skilled Persistence

- Be persistent! Solving problems takes hanging in there.
- Learn new skills if necessary. It's not enough to be persistent. You also need to have the skills to solve a problem.



Remember: Stop and think **before** acting on
your first impulse!

The Thinking/Feeling Connection



How you **think** about something
affects how you **feel**.

Appendix III: Guidelines for Instructors

Training Sessions

Training Sessions #1-3

- I. Review General Clinical Guidelines
 - A. Establish the parent-instructor relationship
 1. Emulate warmth, empathy, trust, genuineness
 2. Engage parent in an active collaborative relationship
 3. Utilize active listening techniques
- II. Introduce the Problem-Solving Skills Training Program
 - A. Explain generally the problem-solving strategies
 1. Present and discuss the parent handouts
 - a. Individual handouts (e.g., Bright IDEAS, Problem-Solving Goals, Thinking/Feeling Connection, etc.)
 - b. Bright IDEAS booklet
 - c. Problem-Solving Steps Parent Manual
 - d. Parent Worksheets
- III. Review the Current Problems Inventory-Revised (CPI-R)
 - A. Identify problem items on the CPI-R designated by the parent
 1. Ask the parent to select those problems she would like to work on first
 - a. Enter the problems on the Problems To Be Solved Chart (can be any problems, not just cancer-specific problems)
- IV. Discuss Parent Worksheets in Detail
 - A. Complete together Problem Analysis Chart
 1. Select first problem to be worked on

2. Go through each question and have parent fill in the blanks
- B. Complete Possible Solutions and Potential Barriers Chart
 1. Work together to brainstorm possible solutions and potential barriers (including accessing outside resources)
 2. Ask parent to rank order solutions
- V. Assign Homework
 - A. Request parent to try out possible solutions in the rank order hierarchy
 - B. Ask parent to complete Action and Results Chart by next session
 - C. Discuss in detail the concepts behind Identifying Automatic Thoughts and Feelings Chart (Review Problem Orientation Step in Instructor's Manual)
 1. Ask parent to complete by next session
- VI. Give Overview of Format for Subsequent Sessions
 - A. Discuss the importance of completed parent worksheets (homework assignments) as the basis of brainstorming possible solutions and overcoming potential barriers during the session
 1. Emphasize the essential nature of the collaborative effort and the vital role that completed parent worksheets (homework assignments) play in providing the forum for collaborative brainstorming between the parent and instructor
 2. Give the parent a telephone number to call if there are any questions or concerns before the next session

VII. Discuss stipend schedule

Training Sessions #2-3

- I. Review Problem-Solving Concepts Presented in Session #1
 - A. Ask parent whether there are any questions about the process

- II. Go over Homework Assignment in Detail
 - A. Review carefully the Action and Results Chart
 - 1. Brainstorm solutions to barriers
 - 2. Design alternative solutions if parent not satisfied with outcome
 - B. Discuss the Identifying Automatic Thoughts and Feelings Chart
 - 1. Ascertain whether parent clearly understands the link between thoughts and feelings
- III. Assign New Homework
 - A. Resolve any lingering concerns with first selected problem
 - B. Identify new problem to be worked on
 - 1. Request parent to complete at home the parent worksheets
 - a. Problem Analysis Chart
 - b. Possible Solutions and Potential Barriers Chart
 - c. Action and Results Chart
 - d. Identifying Automatic Thoughts and Feelings Chart

Training Sessions #3-8

- I. Go over Homework Assignment in Detail
 - A. Review all completed charts carefully
 - 1. Brainstorm together
- II. Assign New Homework
 - A. Same as above

Last Training Session

- I. Go over Homework Assignment in Detail
- II. Administer Time 2 Assessment
 - A. Review Table 1 in Instructor's Manual

III. Discuss Relapse Prevention Strategies

- A. Provide parent with extra copies of worksheets
- B. Emphasize using emotional distress as a “red flag” cue for initiating problem-solving strategies
 - 1. Identify high-risk situations for lapsing into old ways of coping
- C. Promote Skilled Persistence and Learned Optimism
 - 1. Emphasize the importance of persistence in resolving problems and acquiring the necessary skills to succeed
 - 2. Emphasize self-efficacy and the learned optimism that parents **can do** this on their own now that they have the problem-solving skills to do so
- D. Encourage using the IDEAS booklet, individual handouts, and Parent Manual as reference guides
 - 1. Emphasize the value of periodically referring back to source material to refresh her memory of the problem-solving principles and concepts

IV. Discuss Time 3 Assessment

- A. Review Table 1 in Instructor's Manual

Appendix IV: Guidelines for Instructors: Problem-Solving Steps

- I. Problem Orientation (Learning Optimism: Bright **IDEAS**)
 - A. Problem perception
 1. Situation as problem, not emotional reaction
 - B. Problem attribution
 1. Problems are normal and inevitable, not parents' fault (or others' per se)
 - C. Problem appraisal
 1. Accuracy
 - D. Personal control
 1. Promote sense of self-efficacy
 - E. Approach/avoidance style
 1. Encourage approaching and confronting
 - F. Time/effort commitment
 1. Stop Think—systematic measured approach
- II. Problem Definition and Formulation (**I**dentify the Problem)
 - A. Gather information
 - B. Clear definitions
 - C. Minimize cognitive distortions
 1. Catastrophizing
 2. Denying
 - D. Understanding the problem
 1. What is unacceptable
 2. What changes are desired
 3. What obstacles are in the way

- E. Set goals
 - 1. Concrete and specific
 - 2. Realistic goals and objectives

- F. Dismantle complex problems

III. Generate Alternative Solutions (**D**efine Options)

- A. Quantity principle
- B. Deferment of judgment
 - 1. Do not evaluate any solutions until all have been made
- C. Variety
- D. Strategies-tactics procedure
 - 1. Group solutions into strategy categories
 - 2. Generate tactics for strategy categories

IV. Decision Making (**E**valuate Options)

- A. Cost-benefit analysis
 - 1. Likelihood of specific outcome as a result of a solution
 - 2. Screen solutions that are not feasible
 - a. Lack of skill
 - b. High likelihood of negative consequences
- B. Short-term and long-term costs
- C. Final solutions based upon
 - 1. Problem resolution (likelihood of achieving goal)
 - 2. Emotional well-being
 - 3. Time-effort commitment
 - 4. Personal social well-being (bigger picture)

- V. Solution Implementation and Verification (**A**ct and **S**ee If It Worked)
 - A. Action plan
 - B. Solution performance
 - 1. How is it going (any unexpected obstacles?)
 - C. Self-monitoring
 - 1. Parent behavior—outcomes
 - D. Self-evaluation
 - 1. Compare obtained outcome with expected outcome
 - E. Self-reinforcement
 - 1. Learned optimism
 - 2. You can control aspects of process regarding child's cancer

Appendix V: Practice Example (Instructor's Version)

PROBLEM SITUATION

During the 1st month after Mary's 4-year-old son, Jeff, was diagnosed with leukemia, her husband, Steve, took time off from work and was present for all hospital stays and clinic visits. They got information together and she felt as if they were together in the process of treating Jeff's leukemia. Now Steve has returned to work full time, and Mary is taking Jeff to clinic herself. Difficulties have come up when, due to Jeff's sensitivity to side effects of chemotherapy, changes have been made in his treatment plan, which involve new medications and a different clinic schedule. When Mary gets home and tells her husband about these changes, he often has many questions that she can not answer. Steve expresses some anger and irritation with her, both for her lack of answers and for not questioning the doctor more about whether these changes are really necessary. In turn, Mary also becomes angry and upset: "He expects me to be able to answer questions as if I were the doctor if he needs so much information he ought to go to clinic himself,but I know he can't cause he's used up all his vacation and sick time at work" This scenario has repeated itself several times leading to arguments and tension between them. Now Mary is trying to figure out what to do.

Step 1 Learning Optimism

Step 2 I identify the problem

Mary's "problem" is very complex and needs to be clarified and broken down into subproblems or components, so that a specific, circumscribed problem that is realistically solvable can be identified (cf. "Dismantling Complex problems, p.18 of manual).

The trainer's task at this point is to help Mary identify a clear and unambiguous problem she wants to work on. This may require enumeration of a number of problems that are related or chained together (using chart from Table 1). Through a series of questions posed by the trainer, Mary identifies several problems:

1. Since her husband's return to work she feels lonely, isolated, lacking support.
2. Mary is sometimes overwhelmed by medical information. She is getting too much into and can't process it well; she also has a difficult time understanding medical information.
3. Mary is shy/fearful about asking questions. Her Doctor is not warm, and Mary is not comfortable talking with him.
4. Financial worries for the family are growing, therefore necessitating husband's return to work.
5. She has communication difficulties with her husband, which have been increasing the tension between them.
6. There are communication problems with her husband's parents, who also ask a lot of questions, and this, in turn seems to escalate Steve's anger with Mary.

After enumerating this list, Mary chooses # 5, Re: communication with her husband as the one she wants to work on. The trainer now takes her through a series of questions to further define problem - using problem definition chart (Table 2).

What is the specific problem situation? Husband asking questions re: medical issues after she and Jeff return from clinic visit. Mary cannot answer, Steve gets angry, Mary gets defensive. They withdraw from each other.

Where does the problem occur? At home, generally.

When does the problem occur? Usually in the early evening. Steve has just come home from work. Mary just come home from clinic. Both are feeling tense and stressed. After negative interactions, the tensions and withdrawal often continue through the evening, so that they both go to bed upset and not talking to each other.

Who else is involved as part of the problem? Of course Jeff is involved, as the discussions are about his medical care. Jeff's doctor is involved indirectly, as Mom has some difficulty talking with him. She trusts his medical judgment, and knows he is providing the best care for Jeff, but he is cold. Mary's in-laws are indirectly involved because they are always calling to ask questions, which raises anxiety of Steve & Mary and increases tension between them.

Why does the problem occur? Mary provides a number of reasons, starting from the simple and concrete to more complex. E.g., 1st reason is because husband is not at clinic with her. 2nd is because Mary has some trouble understanding medical implications and is shy about asking questions. 3rd is because Steve feels so guilty about his lack of involvement in Jeff's medical care and is very anxious about Jeff's treatment. This leaves him very dependent on Mary for information and reassurance, and he gets upset when she can't provide it. 4th. is that Mary and Steve have different informational needs. Steve likes to ask a lot of questions, and seems to feel better when he gets as many details as possible. Mary does not like to get a lot of information - she prefers to rely on the doctors, and let them worry about the medical details.

How do you feel and respond when the problem occurs? Mary initially feels frustrated when she cannot provide the information Steve wants. Then she feels hurt when he expresses anger at her for this. Later, she becomes angry at him for making unreasonable demands on her, and this prompts her to withdraw from him. Finally, if they go to bed without speaking, she feels very lonely and sad.

How optimistic are you about solving the problem? Mary is not very optimistic about this, and needs support and reassurance that problem has potential solutions.

Step 3 Define the options for solving the problem

Using table 3 - Alternative solutions and decision making chart, the trainer now helps Mary identify a number of solutions while suspending judgment about how realistic or feasible they are. Mary identifies a number of potential solutions:

1. If Jeff were miraculously cured of his illness, the problem would disappear.
2. If the family suddenly became independently wealthy, Steve could leave work to go to the clinic.
3. If they could hold clinics on evenings or weekends, then Steve could make it.
4. If Mary could ask more questions and get more information, maybe she could provide enough information so that Steve would be satisfied.
5. If Steve could somehow get the information while the doctor is providing it - like through a conference call. (This leads to more brainstorming, and to some related solutions, such as Mary could bring a tape recorder and record all of the Doctor's statements)
6. Before clinic visits, Steve could write down a list of questions for Mary to ask the doctor.
7. Steve could regularly call doctor in the evening or the day after Jeff's clinic visit.
8. Steve and Mary could get counseling - which might help Steve understand how hard it is for Mary to get all the information he needs, and might improve their relationship.

Step 4 Evaluate and choose an option.

The trainer congratulates Mary and gives her a lot of positive feedback for coming up with such a comprehensive list of potential solutions. Surely, there will be some solution(s) there that will be very helpful. The Trainer may now go over all of the solutions to review the costs/benefits and possible barriers of each, but at his/her discretion they might also skip some that are unrealistic. This is a judgment call for the trainer. However, it is important to point out that, in going over solutions that are unrealistic, and identifying barriers, you may raise alternative options that are more realistic. E.g. option #2 above - trainer might ask Mary if there are any wealthy relatives that are likely to make them heirs in near future, or point out that winning the lottery can't be counted on. But perhaps they could make a small loan from Steve's parents (e.g. they could take over the car payment) for a short time, which would allow Steve to take one afternoon off a week without pay. This could happen with many solutions, and you could come up with a number of "amended solutions" in this way.

In reviewing these solutions with Mary, the barriers to #'s 5 and 6 above, lead to a combining of the 2 options into one approach. That is, a barrier to the solution of Mary's bringing a tape recorder with her to the clinic is that she still won't ask many questions, and therefore information might still not be sufficient. If she goes to clinic with a list of questions, she may not adequately understand or remember the information. Thus they decide to combine the two solutions into one; first she will have her husband provide a list of questions in the morning before a clinic visit, and Mary then will take tape recorder with her to clinic as well.

This occurs in the process of evaluation options above. Mary decides that the combination of #'s 5 and 6 above is her first choice. She will discuss it with her husband, and assuming he agrees, put it into action at next clinic visit. She also decides that her second choice is the "amended" solution # 2 above. If the question list/tape recorder is not sufficient. Mary is prepared to discuss with her husband asking for some temporary financial help from his parents so that they can go to clinic together once per week.

Step 5 Act.

Mary is encouraged and "pumped up" to go home and discuss this solution with her husband. He agrees and they try it the next week.

Step 6 See how it worked.

This solution works even better than expected. When Mary's doctor sees her with a list of questions and a tape recorder, he explores this with her. She explains the difficulty they have been having. The doctor is more sympathetic than she has found him in the past. He seems to take more time in explaining things. In addition to allowing the tape recorder, he tells Mary that after she gets home and husband has opportunity to listen to tape, if he has any further questions to please call him. (Thus adding solution # 7 above as well). Thus this solution has the added benefit of improving Mary's relationship with her doctor as well. When Steve feels he is getting sufficient information, he is much more relaxed and supportive of Reference List.