Journal of Psychotherapy Integration, Vol. 11, No. 2, 2001

Problem Solving Therapy

Arthur M. Nezu[1,2] **and Christine Maguth Nezu**[1]

This paper describes how problem solving therapy (PST) would be applied to the treatment of Sylvia (I. Caro, 2001), a 27-year-old depressed wife and mother of three. PST involves training individuals in five major processes: problem orientation, problem definition and formulation, generation of alternatives, decision making, and solution implementation and verification. We briefly describe a problem solving model of depression that highlights the moderating nature of problem solving ability regarding the stress–depression relationship. Based on this model, we then delineate how PST can be specifically applied to Sylvia. This is followed by a brief overview of the research base supporting the efficacy of PST for depression.

KEY WORDS: problem solving therapy; depression; cognitive–behavior therapy.

Clinical interventions that teach individuals problem solving skills as a means of improving their ability to cope more effectively with stressful life situations have become more popular over the past several decades (Nezu, Nezu, Friedman, Faddis, & Houts, 1998). This paper describes how such an approach to psychotherapy would be applied to the case of Silvia, the patient who is the focus of this symposium (Caro, 2001). Our approach is based on the prescriptive model of social problem solving originally delineated by D'Zurilla and Goldfried (1971) and later revised by D'Zurilla and Nezu (1982, 1999; Nezu & D'Zurilla, 1989) and their colleagues (e.g., Nezu, Nezu, & Perri, 1989; Nezu, Nezu, Rothenberg, & D'Zurilla, 1996). We begin by describing the overall problem solving process, followed by a discussion of general treatment goals and assessment issues. After we demonstrate how

[1]Department of Clinical and Health Psychology, MCP Hahnemann University, Philadelphia, Pennsylvania.
[2]Correspondence should be addressed to Arthur M. Nezu, PhD, Department of Clinical and Health Psychology, MS 515, MCP Hahnemann University, 245 N 15th Street, Philadelphia, Pennsylvania 19102–1192.

1053-0479/01/0600-0187$19.50/0

problem solving therapy (PST) would be implemented for Silvia, we offer a brief overview of the research support of PST for depression.

OVERALL PROBLEM SOLVING PROCESS

According to our model, effective problem solving involves two major, partially independent processes, each of which makes a distinct contribution to effective problem resolution (D'Zurilla & Nezu, 1999; Nezu et al., 1998). These components include problem orientation and problem solving "proper."

The *problem orientation* component is a motivational process and involves the immediate cognitive–affective reactions of an individual when first confronted with a problem. These include generalized beliefs, assumptions, and expectations concerning life's problems and one's ability to solve them effectively. An individual's problem orientation may be either positive, which can facilitate effective problem solving, or negative, which can inhibit problem solving. A positive problem orientation involves the general disposition of people to (a) accurately recognize problems when they occur; (b) appropriately ascribe the "cause" of the problem to the correct source(s); (c) appraise a problem as a challenge; (d) believe that problems in general are solvable; and (e) believe that their ability to resolve most problems in life is generally effective.

In comparison, a negative problem orientation is a dysfunctional cognitive–emotional set that involves the general tendency of individuals to (a) overlook problems when they occur; (b) inaccurately attribute the cause of the problem to either themselves (e.g., "it's *always* my fault") or others ("it's always someone else that's messing up my life"); (c) view problems as a significant threat to their well-being; (d) expect problems to be extremely difficult to solve; (e) doubt their ability to solve problems successfully; and as a consequence, (f) become frustrated and upset when problems actually occur. One's problem orientation is the result of social learning and may be associated with long-held beliefs and intense emotions.

In addition, related to the orientation are two *behavioral* styles of problem solving: an avoidant style and an impulsive/careless style. The *avoidance style* is a maladaptive problem solving pattern that is characterized by procrastination, passivity, inaction, and dependency. The individual with a strong avoidant style prefers to avoid problems rather than confront them, puts off solving problems for as long as possible, waits for problems to resolve themselves, and attempts to shift the responsibility for solving his or her problems to others.

The *impulsive/careless style* is another deficient problem solving pattern. Although this style is characterized by active attempts to apply problem solving strategies, such attempts are narrow, impulsive, careless, hurried, and generally incomplete. This type of person usually considers only a few solution alternatives, often impulsively goes with the first idea that comes to mind, quickly, carelessly, and unsystematically scans alternatives and consequences, and does not monitor and evaluate the outcome of a solution plan carefully. An impulsive/careless style is often associated with individuals who have a low tolerance for uncertainty, distress, or negative emotions.

The second major problem solving process, "problem solving proper," involves the rational, systematic, and skillful application of four sets of goal-directed tasks geared specifically to resolve problems. These include problem definition and formulation, generation of alternatives, decision making, and solution implementation and verification. The goal of *problem definition and formulation* is to clarify and understand the specific nature of a problem and to specify realistic goals and objectives. *Generation of alternatives* involves creatively thinking of a wide range of solutions using various brainstorming strategies in order to increase the likelihood that the most effective solutions will be identified. The goal of *decision making* is to conduct a cost–benefit analysis of each proposed solution in order to identify the most effective one(s) for implementation. *Solution implementation and verification* involves carrying out the chosen solution, observing the consequences, and evaluating its effectiveness.

PST TREATMENT GOALS FOR DEPRESSION

The goals of PST, as applied to depression, are to (a) help individuals identify those stressful life situations that contribute to their depression, (b) minimize the degree to which the depressive symptoms impact negatively on their ability to cope with such stressors, (c) increase the effectiveness of their problem solving attempts at coping with current problems, and (d) prevent future depressive episodes.

Depending upon the patient's unique life circumstances, PST can focus on changing the problematic nature of the actual stressful life situations, his or her maladaptive response to these events, or both. It can be applied in a highly structured, time-limited format similar to our group research programs (e.g., Nezu, 1986; Nezu & Perri, 1989), or within a broader, open-ended therapy format. It can be viewed as being the sole treatment program, as part of a larger treatment package, or as a form of maintenance and generalization training. If used in conjunction with other treatment strategies, we recommend that the overall therapy be conducted within a larger general

problem solving framework. In this case, the additional techniques would be incorporated as a means of facilitating training in a particular problem solving process. For example, the use of cognitive restructuring strategies would be an appropriate means during problem-definition-and-formulation training to help minimize the extent to which various cognitive distortions prevent an individual from accurately defining a problem. Relaxation training may be helpful during generation-of-alternatives training to foster creativity by decreasing interference associated with emotional reactivity. Finally, in working with individuals who experience long-held negative views of themselves and others, such schema-focused problems require a strong therapeutic concentration on strategies aimed at developing a positive problem orientation.

PROBLEM SOLVING ASSESSMENT ISSUES

Before applying PST, it is helpful to first obtain an assessment of the patient's general problem solving beliefs and abilities. To accomplish this, we recommend that the therapist administer the Social Problem Solving Inventory-Revised (SPSI-R; D'Zurilla, Nezu, & Maydeu-Olivares, in press). The SPSI-R is a 52-item, self-report inventory and is the end result of a series of exploratory and confirmatory factor analyses of the original 70-item SPSI (D'Zurilla & Nezu, 1990). The SPSI-R contains five major scales: Positive Problem Orientation (PPO); Negative Problem Orientation (NPO); Rational Problem Solving (RPS); Impulsivity/Carelessness Style (ICS); and Avoidance Style (AS). The RPS scale further contains four subscales representing the four goal-directed problem solving tasks (i.e., problem definition and formulation, generation of alternatives, decision making, solution implementation and verification). Because the SPSI-R provides an evaluation of a patient's standing in each of the crucial training areas, it is especially useful as an assessment tool.

In addition, the SPSI-R possesses sound psychometric properties (D'Zurilla et al., in press). For example, coefficient alphas for the five major scales range from .76 to .92. Test-retest reliabilities range from .72 to .88. Alpha estimates for the total score is .95, whereas the test-retest reliability for the total score is .93. Moreover, significant evidence supports the structural, concurrent, predictive, convergent, and discriminant validity of the SPSI-R (D'Zurilla et al., in press). Of particular relevance to clinical settings, it has also been found to be sensitive to the effects of training in problem solving skills (e.g., Nezu et al., 1998).

Additional methods of assessing a patient's problem solving ability involves the use of structured interviews and role-plays of hypothetical

problem situations (D'Zurilla & Nezu, 1999). Therapist observation of a patient's abilities and performance (i.e., the products of the problem solving process) can be carried out during discussions of actual or real-life problems. In addition, patients can be requested to keep a diary or record of various problems and their attempts at solving these problems that occur between sessions (see D'Zurilla & Nezu, 1999, and Nezu et al., 1998, for specific forms).

APPLYING PST TO THE CASE OF SYLVIA

In the next section, we will describe how PST can be applied to the case of Sylvia as described by Caro (2001).

Diagnosis

In Caro's (2001) description of the case, a diagnosis of major depressive disorder (MDD) was already given. Based on the details of this description, we concur with this diagnosis in general but would require additional information about the presence and consistency of the major symptom picture over the course of a 2-week period. Further, we would want to know more about Sylvia's history to determine if the current presentation is the first bona fide episode, or if her background suggests the possibility of a diagnosis of MDD-recurrent or the presence of a dysthymic disorder underneath the current MDD symptoms (i.e., "double depression") or both.

In addition, we would be interested in obtaining more evidence to either support or disconfirm the presence of a bona fide Axis II diagnosis, where a potential personality disorder diagnosis may involve dependent personality.

Assessment Plan

As noted above, there would be additional information that we would seek pertaining to the (dis)confirmation of various diagnoses. With regard to Sylvia's symptom picture, Caro's (2001) description provides ample evidence of clinical levels of distress, depression in particular. Although many of the items on the various measures indicate a strong sense of hopelessness, any immediate concern about acute suicidality appears unwarranted. For example, it is only on the Life Questionnaire that the issue of suicide emerges—no related items on the BDI appear to have been endorsed.

Relevant to a PST approach, we would definitely administer the SPSI-R to obtain an overall understanding of her general problem solving beliefs

and abilities. Our interpretation of her data would be both global (i.e., comparison of scale and subscale scores to available normative data in D'Zurilla et al., in press) and specific (i.e., identifying items indicative of specific problem solving deficits and distortions).

In addition, we would ask Sylvia, during the beginning of treatment, to complete at least one "Record of Coping Attempts" form on an ongoing basis. This form (see Nezu et al., 1998, for copy of form) requests individuals to briefly describe a problem or stressful situation that recently occurred along with the following information: (a) their *thoughts* before, during, and after the event; (b) their *feelings* before, during, and after the event; (c) what they actually tried to *do* to either resolve the problem or cope with the stressful event; and (d) to rate, on a 5-point scale, their satisfaction with the outcome of their coping attempts. Such a record provides ongoing assessment of problem solving deficits, as well as progress. In addition, it helps the patient begin to be able to distinguish among his or her thoughts, feelings, and behavior, and how they might affect each other (e.g., negative self-statements can lead to depressive mood and feelings of hopelessness, which in turn leads to decreased behavioral attempts to solve the problem, which can engender more thoughts of inadequacy, and so forth).

Case Conceptualization

According to a problem solving model of depression, there are three levels of conceptual and clinical analysis (Nezu, 1987). The first level focuses on the transactional relationships among four major variables: (a) major negative life events; (b) current problems; (c) problem solving coping; and (d) depressive symptoms (Nezu et al., 1989; Nezu, Nezu, & Perri, 1990). Briefly put, research underscores the causal role that both major negative life events and daily problems play regarding depression (Nezu & Ronan, 1985). The degree to which one is able to cope with such stressful events, via problem solving, determines the probability that he or she will experience depressive symptoms as a function of that stressor. In other words, problem solving serves as an important moderator of the stress–distress relationship (see Nezu, Nezu, Saraydarian, Kalmar, & Ronan, 1986; Nezu & Ronan, 1985, 1988, for supportive evidence of this model). Further, experiencing depression can often engender new problems and even new major negative life events, which can further lead to increased depression. For example, the person who feels depressed because of difficulties with his or her boss at work may function less competently, which can lead to getting fired, to increased distress, and so on. At times, the severity or trauma associated

with a stressful event may be so intense that it negatively impacts on one's historically effective problem solving skills, a situation that serves to decrease one's ability to deal with the emerging and consequent stress. As such, this scenario can also lead to depression. PST is geared to stop this general downward spiral–that is, increasing one's problem solving skills serves to increase one's ability to successfully cope with problems and stressful events, thereby reducing one's depression.

Relevance to Sylvia

Throughout her marriage, Sylvia has been experiencing continuous stressful problems. Although none of these may be viewed as a traumatic major life event, one can conceive of her current relationship with her husband, Daniel, and his family, as the source of many ongoing difficulties. This marriage engenders feelings of isolation, depression, disappointment, and anxiety. She reports feeling that her husband gives her very little support and did nothing to argue with his mother when she suggested that Daniel was not the father of her first child. In addition, the children appear to have significant behavioral and emotional problems. Sylvia further reports the lack of a sense of "team approach" between her and her husband when it comes to addressing these problems.

Based on the case description, we would predict that our problem solving assessment (i.e., combination of her SPSI-R scores, data from completed "Record of Coping Attempts" forms, and interview responses) would indicate that Sylvia (a) typically views obstacles to solving problems as unsurmountable; (b) frequently engages in negative self-talk that perpetuates her belief that she is not capable of overcoming difficult situations; (c) actively avoids dealing with problems; (d) generally believes that it is not worthwhile putting forth effort to change her problems because ultimately she would fail; (e) often acts and makes decisions impulsively to lessen the impact of negative emotions; (f) tends to see most problems as catastrophes; and (g) swings widely between attributing the "cause" of her marital problems to herself (tied to her feelings of worthlessness) and her mother-in-law. In general, because of her deficient problem solving abilities, we would hypothesize that such maladaptive ways of thinking and coping initially contributed to the creation of many of her current problems (e.g., getting pregnant and marrying someone as a means of escaping her parents' home), as well as limiting her success in effectively dealing with them at present (e.g., appropriately and adaptively asserting her needs with her husband).

Second Level of Analysis

The second level of analysis within the problem solving model of depression considers the causal role of various vulnerability factors, such as genetic and biological variables. Further, prior learning and developmental history can have strong influences on the major variables within the transactional model. For example, prior history can affect the perceived importance, potency, and impact of a particular stressor (i.e., emotional sensitivity to certain types of problems), as well as the overall effectiveness of an individual's problem solving ability.

Relevance to Sylvia

There appears to be no history of mental or emotional disorders in her family. However, Sylvia's developmental and learning history suggest that, whereas her early childhood appeared to be unremarkable, her family atmosphere became more restrictive and limiting as she entered her preteen and teenage years. It is likely that her parents did not provide for good models of effective problem solving, and when problems arose for Sylvia, they were either unaware of them (e.g., Sylvia's relationship with an older man when she was only 14 years old) or unable to help her (e.g., Sylvia felt very estranged from her father). It is our experience that when individuals are reared in such a restrictive social learning environment, they often disregard and devalue their feelings. This is extremely unfortunate, as awareness of negative feelings and tolerance of such distressful emotions allows one to better understand the problems, goals, and obstacles that they are confronting.

Further, we would hypothesize that Sylvia had few family or peer role models from whom to effectively learn and practice such prosocial skills. Based on her perceived inability to cope with this unsatisfying family atmosphere, she impulsively got married as a means of escaping from her parents' influence. Further, having a very limited work history, Sylvia did not have the opportunity to develop a sense of self-efficacy regarding emotional regulation, general competencies, and talents. All these factors contribute to her sense of hopelessness, worthlessness, and depression.

Third Level of Analysis

This last level focuses on the relation between depression and each of the major problem solving components. According to our theory, and as

supported by research (Nezu et al., 1989), depression can result as a function of deficiencies, or decreased effectiveness, in any or all of the major components of problem solving (i.e., problem orientation, problem definition and formulation, generation of alternatives, decision making, and solution implementation and verification). Depressed individuals are often characterized by a strong negative orientation, having little faith in their ability to cope with stressful problems, believing that most problems are catastrophes, often blaming themselves for causing the problem, and becoming distressed when problems occur. Awareness and adaptive use of negative emotions are key aspects of problem orientation. Collectively, such beliefs decrease one's desire or motivation to engage in any meaningful coping attempts. One's ability to effectively define and formulate problems and to set realistic goals are also decreased when depressed, thus, making it very difficult to identify effective solutions. Often depressed individuals set unrealistically high goals—when not achieved, self-blame occurs. Depressed individuals also tend to generate both fewer and less effective alternatives to problem situations. A negative problem orientation and lack of alternatives biases the depressed person to selectively attend to negative versus positive events and to immediate versus long term consequences. The depressed individual may also have difficulty actually carrying out his or her plan, because of specific behavioral and social skill deficits. Further, a negative problem orientation may impact on an individual's ability to be objective about the outcome of solution implementation. Thus, the depressed individual is unsatisfied with the coping attempt and may feel that the goals have not been achieved.

Relevance to Sylvia

Based on the case description, in addition to our hypotheses, we suggest that Sylvia has the following problem solving deficits: (a) a strong negative problem orientation; (b) the tendency to avoid problems or act impulsively to avoid negative feelings; (c) an inability to generate alternative solutions to her problems; (d) poor social skills, which discouraged her from carrying out solutions; and (e) a strong tendency to downplay any attempt to cope with her problems.

Particularly with regard to problem orientation, Sylvia tends to express her feelings as thoughts. For example, her statements expressed in the self-questionnaire indicates that she "feels like a piece of junk" and "feels like a bad wife." She does not describe her feelings in terms of anger, sadness, or fear. More accurate identification and awareness would be useful to later

problem solving efforts because Sylvia could use those feelings to help her accurately identify and define the problems she is facing.

Treatment Plan

PST is conducted by training patients in each of the major problem solving components. The specific targeted problems that become the focus of the therapy, in addition to improving problem solving skills as a whole, are chosen based on the individual's identification of specific stressors, as well as the therapist's continuous assessment and clinical decision making. As part of the PST training process, each component addresses specific deficits (as well as strengths) that are considered "sub-goals" or targets. For example, Sylvia's cognitive distortions or biased attributional styles would be highlighted by the therapist during problem orientation training (and throughout treatment), such that she learns to combat these self-defeating processes. Training in each of the problem solving processes are briefly described below (see Nezu et al., 1989, for a detailed treatment manual for depression).

Training in Problem Orientation

Training in this component would be geared to help Sylvia (a) correctly identify and recognize problems when they occur, (b) adopt a more rational view toward problems in living (i.e., that they are a "normal" part of life), (c) increase her expectations that she would be able to actually resolve such problems successfully, and (d) inhibit the tendency to act impulsively when attempting to deal with emotional difficulties or to avoid problems when they occur.

To help Sylvia accurately recognize and label problems when they occur, we would first teach her to more accurately label her emotions. For example, when her husband does not defend her, she is likely to experience anger and fear. This therapeutic work is likely to be extensive because Sylvia has been discounting her emotions for a long time and probably believes that she does not have a "right to her feelings." Such long-held beliefs, therefore, would also be challenged as part of problem orientation training.

Next, we would ask her to complete various problem checklists, which would serve as the basis for discussions of problems in living across a wide variety of categories (e.g., job, friends, career, finances, etc.). Such a discussion would be geared to help her to be more sensitized to the possibility of problems in general, not only in terms of her own life, but in others as well.

Further, Sylvia would be taught to use her feelings as *cues* or *signals* that a problem exists and that feelings per se are not bad, but can be useful in helping to identify problems. She would be taught, for example, to use the visual image of a flashing traffic stoplight when she experienced a negative mood or thought in order to "STOP and THINK."

To help combat her overall negative problem orientation, we would recommend the use of the *reverse advocacy role-play strategy* in order to "plant the seeds" of a more positive orientation. According to this technique, the PST therapist pretends to adopt a particular belief about problems and asks the patient to provide a list of reasons why that belief is irrational, illogical, incorrect, or maladaptive. For Sylvia, such beliefs might include "all my problems are caused by me" and "I'm never going to be able to feel better." If a patient has difficulty generating arguments against the therapist's position, then the therapist would adopt a more extreme form of the belief (e.g., "no matter what happens, even though other people change, I'll never get better, no matter what happens . . ."). In addition, various cognitive restructuring strategies would be used to help overturn Sylvia's cognitive distortions regarding problems in living.

Training in Problem Definition

Training in this problem solving skill would focus on five tasks: (a) seeking all available facts about a problem; (b) describing these facts in clear and objective terms; (c) separating facts from assumptions (and especially distortions); (d) identifying obstacles or conflicts that make the situation a problem; and (e) setting realistic goals. In general, PST encourages the patient to adopt a particular style when seeking information about problems, such as an investigative reporter or detective, who has to be objective and cautious in "over" interpreting the facts.

Sylvia would also be taught to set realistic and attainable goals by stating a series of objectives that would be steps toward reaching a larger goal. Because she had a tendency to set unattainable goals previously (e.g., the likely thought of "if I get married and leave my parents' house, my life would be perfect"), practicing this skill in particular would be especially salient for Sylvia. In addition, she would be further taught to differentiate between *problem-focused goals* and *emotion-focused goals*. Problem-focused goals entail objectives that relate to actual changes in the problem itself, which would be appropriate for situations that are possible to change. On the other hand, emotion-focused goals relate to objectives aimed at reducing the impact of the distress associated with the experience of the problem. These relate more to situations that are often likely to be unchangeable.

With regard to Sylvia's marriage, for example, it may turn out that her husband, Daniel, may refuse to change anything. This understanding may then lead Sylvia to reassess the marriage in terms of emotion-focused goals, such as "accepting versus not accepting the way her marriage is currently." In turn, she would have to decide whether she then needs to learn to be more accepting of an unsatisfying relationship or to leave the marriage and develop a different life for herself (and possibly her children), which would involve more problem-focused goals (e.g., "How can I support myself and my kids financially").

If, however, Daniel is willing to work on their marriage, a different set of problem-focused goals may be identified: "How can I communicate more effectively," "How can I change my children's behavioral problems," or "How can I deal more assertively with my mother-in-law, " or a combination of these.

The last step in problem definition training would involve teaching Sylvia to better identify the obstacles that exist in a given problem that prevents her from reaching her goals. If one of her goals hypothetically was to get a divorce, such factors may include *novelty* (e.g., learning to be single again), *uncertainty* (e.g., getting a new job), *conflicting demands* (e.g., reduced finances versus wanting to be with her children), and *lack of resources* (e.g., limited skills and education conducive to get a job). In addition, Sylvia would be taught to deal with complex problems by breaking them down into smaller parts and to better understand why each situation was a problem.

Training in Generation of Alternatives

In this PST step, Sylvia would be taught to expand her perceived options. We already know that she often chose to avoid any attempts at solving her problems, believing that nothing would work. She may have considered one or two alternatives, but would likely dismiss them quickly. As part of training in this problem solving process, Sylvia would be encouraged to *defer judgment* of those alternatives that she generated. In addition, she would be taught various brainstorming strategies in order to develop new alternatives. If she has difficulty in doing this, she might be taught to visualize or imagine how a "hero" would solve a particular problem.

Training in Decision Making

To facilitate her decision-making skills, Sylvia would learn to evaluate the options that she had previously generated for a given problem by

conducting a cost–benefit analysis, the goal of which would be to identify a solution plan that *maximizes positive consequences and minimizes negative consequences*. During this process, Sylvia might initially have the therapist's guidance in helping her to evaluate personal, social, short-term, and long-term consequences of each option. She would be taught to use a simple rating system (i.e., positive, negative, or neutral rating) where each option would be evaluated according to these general categories of consequences. In addition, she would be taught to estimate the likelihood of each solution being able to achieve the stated goal, as well as her ability to carry out the alternative in its most optimal form. Based on these ratings, Sylvia would learn to identify options that appeared to be effective ones and to develop an overall solution plan.

Training in Solution Implementation and Verification

Given Sylvia's self-reported tendency to avoid difficulties, carrying out the solution plan would likely be viewed by the PST therapist as a particularly relevant challenge for her. Here, she would be taught tools for self-motivation to carry out a solution plan. First, she would be taught to identify many of the potentially *positive* consequences to solving her problem. Conversely, she would then be asked to list several of the *negative* consequences likely to occur if she did *not* implement her solution. Preparing these lists is assumed to help patients to concretely find evidence that it is usually in their best interest to implement a solution plan.

In addition, Sylvia would be taught to create a system for monitoring the results of a given solution. Monitoring the outcome of a solution would serve to provide her with an opportunity to reinforce her efforts and to identify her successes. If the solution is not effective, on the other hand, such data would allow her to know when she is required to recycle through the problem solving process once again to identify a better solution plan.

General Treatment Issues

During PST training, therapists should not only provide didactic explanations of each of the various components of the overall therapy approach, but should also model the manner in which they can be used. Moreover, as many real-life and relevant problems as possible should be used as examples to illustrate the various components. Therapists should be careful not to present this approach as a cold, rational, or sterile process of thinking. Patients may react initially to this approach as being either too simplistic

(i.e., "I don't have any difficulties solving problems–I thought we were going to talk about my deep-seated issues") or too "cold" (e.g., "How can I be so rational when I feel so upset?"). Providing a detailed analysis, based upon a comprehensive evaluation of the client's problems, helps to minimize such initial negative reactions.

To facilitate learning, we recommend supplying the patients with handouts that reflect a given session's "lesson." As a means of increasing generalization and maintenance, clients would be encouraged to complete a wide variety of homework assignments between sessions that address a particular problem solving task (e.g., generating a list of potential solutions to a given problem). Behavioral rehearsal of the various problem solving tasks should be emphasized throughout training. Frequent in-session and between session opportunities for practice should be afforded to the client.

Adjunctive Interventions

As mentioned earlier, we strongly recommend the use of a variety of additional clinical interventions to supplement PST, but more from the perspective of having such techniques applied as a means of facilitating training in a particular problem solving process. For example, the use of cognitive restructuring strategies would be an appropriate means during problem-definition-and-formulation training to help minimize the extent to which various cognitive distortions prevent an individual from accurately defining a problem. Relaxation training may be helpful during generation-of-alternatives training to foster creativity by decreasing interference associated with emotional reactivity.

Potential Problems

One major problem involving therapy with Sylvia involves the willingness of her husband to be supportive of her continued treatment or to actually be an active participant in the treatment (e.g., marital therapy). Depending on his own perceptions, goals, and values, he may or may not be agreeable to "solving the marital problem." If not, it is possible that Sylvia may need to redefine her goals without Daniel as her husband in the picture.

In terms of PST per se, it would be important to gear treatment consistent with Sylvia's educational background, which is somewhat limited. Descriptions of treatment strategies, homework assignments, and patient handouts all need to be "user-friendly" and easily understandable.

Depending on the degree to which "Axis II-involvement" is present, treatment may need to be somewhat more intense and prolonged, as compared to PST for depressed persons without concomitant diagnoses. Longstanding personality styles may require additional modifications of the problem solving approach (Cohen & Nezu, 1989). In particular, more emphasis may need to be placed in fostering a positive problem orientation and improved emotional regulation. Given Sylvia's sense of hopelessness, an emphasis on generation-of-alternatives training may also appear warranted in order to facilitate her ability to perceive a wide range of options that may be available for any given problem.

Expected Outcome

Assuming that the hypotheses embedded in our case formulation described earlier are essentially correct, in addition to the known efficacy of PST for depressed patients (see next section), we would expect that Sylvia would respond well to this approach. It is likely that symptom relief would occur during the 5th or 6th week of treatment. Because an underlying tenet of PST is to foster generalized coping skills that address the issue of generalization and maintenance, we would also expect, assuming that it is competently implemented, that PST would also help to prevent future depressive episodes, even if Sylvia encounters stressful problems.

PST FOR DEPRESSION: RESEARCH FINDINGS

In an outcome study focusing on adult unipolar depression, Nezu (1986) randomly assigned 26 clinically depressed individuals in an outpatient setting to one of three conditions: (1) PST; (2) problem-focused therapy (PFT); or (3) waiting-list control (WLC). Both therapy conditions were conducted in a group setting over eight weekly sessions lasting from 1.5 to 2 hr. The PFT condition involved discussions of patients' life problems with a problem solving goal, but no systematic training in problem solving skills was provided.

Dependent measures were obtained at pretreatment, posttreatment, and at a 6-month follow-up assessment. Both traditional statistical analyses and an analysis of the clinical significance of the results indicated substantial reductions in depression in the PST group, that were maintained over the 6-month follow-up period. Moreover, the improvement in depression in the PST condition was significantly greater than that in the PFT and WLC conditions. The superiority of PST over PFT was maintained at the 6-month follow-up evaluation.

The purpose of a subsequent study by Nezu and Perri (1989) was twofold: (a) to provide for a partial replication of the Nezu (1986) investigation; and (b) to assess the relative contribution of the problem-orientation component in treating depressed individuals. A dismantling research strategy was used to address these goals by randomly assigning 39 individuals who had been reliably diagnosed as experiencing MDD to one of three conditions: (a) PST; (b) Abbreviated PST (APST); and (c) a waiting-list control. Both treatment conditions included ten 2-hr therapy sessions conducted in groups by pairs of therapists counterbalanced by condition.

Members of the PST condition received training in all five components of the model. APST participants were provided with a similar package, with the exception of training in the problem orientation component. Subjects in the WLC condition were requested to wait until the program was able to accommodate them at a later date. In this manner, the degree to which training in problem orientation contributes to a positive treatment outcome can be determined by such a component analysis.

Pre-post analyses indicated that individuals in the PST condition were significantly less depressed at posttreatment, according to both self-report and clinician-rated measures of depression, as compared to the APST and WLC participants. Further, APST subjects reported significantly lower posttreatment depression scores than did WLC participants. Decreases in depressive symptoms were also significantly correlated with increases in problem solving ability. Furthermore, these results were clinically significant using a metric whereby a "recovered" individual was defined as a treated subject (i.e., PST and APST participants) who had a posttreatment score 2 standard deviations beyond the mean of the dysfunctional population (i.e., untreated subjects or WLC participants). Specifically, following this approach, over 85% of PST subjects, 50% of APST participants, and only 9% of WLC subjects experienced clinically meaningful decreases in depressive symptoms.

A 6-month follow-up assessment revealed no significant differences between posttreatment and follow-up scores for either treatment condition. In other words, the therapeutic benefits obtained by participants in both treatment conditions were maintained 6 months after completing treatment. In general, these overall results provide further support for the efficacy of PST for major depression, as well as underscore the importance of including training in the problem orientation component.

Continuing this line of research, Arean et al. (1993) applied the Nezu et al. (1989) intervention model of depression specific to an older population (i.e., 55 + years). Seventy-five individuals meeting inclusion criteria were randomly assigned to either PST, Reminiscence Therapy (RT), or a waitlist control (WLC) group. Both the PST and RT conditions were conducted

within a group format, with one of three therapists who were trained in both treatment approaches. Each group met over 12 weekly sessions, with each session lasting approximately 1.5 hr. Participants in the PST condition were trained in the five components of problem solving therapy contained in the Nezu et al. (1989) treatment manual. RT involved reviewing one's life history to gain perspective and satisfaction with major positive and negative life events and was based on a psychodynamic formulation that had previously received some empirical support for its efficacy for geriatric depression.

Overall results indicated that participants in both therapy conditions were significantly less depressed as compared to WLC individuals. Moreover, the effects found at posttreatment for PST and RT conditions were maintained 3 months after the completion of treatment. However, individuals in the PST condition reported significantly lower depression at posttreatment than RT participants on two of three depression measures. Moreover, at posttreatment, a significantly greater proportion of individuals in the PST condition (88%), compared with participants in the RT (40%) and WLC (10%) groups, no longer met the diagnostic criteria for major depression.

More recently, Mynors-Wallis, Gath, Lloyd-Thomas, and Tomlinson (1995) compared PST with *an* antidepressant medication regimen for the treatment of depression in a primary care population. Ninety-one adults with major depression were randomly assigned to PST, amitriptyline, or a drug placebo. In all three treatment conditions, participants were offered six or seven sessions lasting from 30 to 60 min over 3 months. The three therapists were a psychiatrist and two general practitioners who were trained in PST and drug administration. Results indicated that at 6 and 12 weeks posttreatment, the PST group was significantly less depressed and more socially adjusted than the placebo group. No significant differences were found between the PST and amitriptyline conditions. This suggests that for the treatment of depression, PST is as effective as a psychopharmacologic intervention.

SUMMARY

This paper provides an overview of PST with specific regard to the treatment of depression as a means of illustrating how this cognitive–behavioral intervention would be applied to the case of Sylvia. PST involves training in five major areas: problem orientation, problem definition and formulation, generation of alternatives, decision making, and solution implementation and verification. A conceptual model of depression is briefly delineated, along with guidelines outlining the clinical application. We end with a brief

overview of the empirical literature that provides strong support for the efficacy of PST for depression.

REFERENCES

Arean, P. A., Perri, M. G., Nezu, A. M., Schein, R. L., Christopher, F., & Joseph, T. X. (1993). Comparative effectiveness of social problem solving therapy and reminiscence therapy as treatments for depression in older adults. *Journal of Consulting and Clinical Psychology*, *61,* 1003–1010, 871–877.

Caro, I. (2001). Advances in cognitive psychotherapies: A comparison of models. *Journal of Psychotherapy Integration*, *11,* 165–186.

Cohen, N., & Nezu, C. M. (1989). Personality disorders chapter. In A. M. Nezu & C. M. Nezu (Eds.), *Clinical decision making in behavior therapy: A problem solving perspective.* Champaign, IL: Research Press.

D'Zurilla, T. J., & Goldfried, M. R. (1971). Problem solving and behavior modification. *Journal of Abnormal Psychology*, *78,* 107–126.

D'Zurilla, T. J., & Nezu, A. M. (1982). Social problem solving in adults. In P. C. Kendall (Ed.), *Advances in cognitive–behavioral research and therapy* (pp. 201–274). New York: Academic Press.

D'Zurilla, T. J., & Nezu, A. M. (1990). Development and preliminary evaluation of the Social problem solving Inventory (SPSI). *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, *2,* 156–163.

SPSI paper.

D'Zurilla, T. J., & Nezu, A. M. (1999). *Problem solving therapy: A social competence approach to clinical intervention* (2nd ed.). New York: Springer.

D'Zurilla, T. J., Nezu, A. M., & Maydeu-Olivares, A. (in press). *Manual for the Social Problem Solving Inventory-Revised.* North Tonawanda, NY: MHS.

Mynors-Wallis, L. M., Gath, D. H., Lloyd-Thomas, A. R., & Tomlinson, D. (1995). Randomised controlled trial comparing problem solving treatment with amitriptyline and placebo for major depression in primary care. *British Medical Journal*, *310,* 441–445.

Nezu, A. M. (1986). Efficacy of a social problem solving therapy approach for unipolar depression. *Journal of Consulting and Clinical Psychology*, *54,* 196–202.

Nezu, A. M. (1987). A problem solving formulation of depression: A literature review and proposal of a pluralistic model. *Clinical Psychology Review*, *7,* 121–144.

Nezu, A. M., & D'Zurilla, T. J. (1989). Social problem solving and negative affective states. In P. C. Kendall & D. Watson (Eds.), *Anxiety and depression: Distinctive and overlapping features* (pp. 285–315). New York: Academic Press.

Nezu, A. M., Nezu, C. M., Friedman, S. H., Faddis, S., & Houts, P. S. (1998). *Coping with cancer: A problem solving approach.* Washington, DC: American Psychological Association.

Nezu, A. M., Nezu, C. M., & Perri, M. G. (1989). *Problem solving therapy for depression: Theory, research, and clinical guidelines.* New York: Wiley.

Nezu, A. M., Nezu, C. M., & Perri, M. G. (1990). Psychotherapy for adults within a problem solving framework: Focus on depression. *Journal of Cognitive Psychotherapy: An International Quarterly*, *4,* 247–256.

Nezu, A. M., Nezu, C. M., Rothenberg, J. L., & D'Zurilla, T. J. (1996). Problem solving therapy. In J. S. Kantor (Ed.), *Clinical depression during addiction recovery* (pp. 187–219). New York: Marcel Dekker.

Nezu, A. M., Nezu, C. M., Saraydarian, Kalmar, & Ronan, G. F. (1986). Social problem solving as a moderating variable between negative life stress and depression. *Cognitive Therapy and Research*, *10,* 489–498.

Nezu, A. M., & Perri, M. G. (1989). Problem solving therapy for unipolar depression: An initial dismantling investigation. *Journal of Consulting and Clinical Psychology*, *57,* 450–452.

Nezu, A. M., & Ronan, G. F. (1985). Life stress, current problems, problem solving, and depressive symptoms: An integrative model. *Journal of Consulting and Clinical Psychology*, *53,* 693–697.

Nezu, A. M., & Ronan, G. F. (1988). Problem solving as a moderator of stress-related depressive symptoms: A prospective analysis. *Journal of Counseling Psychology*, *35,* 134–138.