

## Chapter Five

### Discussion

Cognitive-behavioral treatments are the most well-documented, and apparently most effective, treatments for childhood depression. For the most part, however, these treatment strategies have been studied *en mass* and without regard to etiological factors. Efforts to translate these findings to clinical practice are thwarted by the large number of strategies (and sessions) included in empirically supported cognitive-behavioral treatment packages and a lack of guidance regarding the strategies that are most appropriate for individual children. We would, therefore, benefit from more fine-grained and specific analyses of the relative effectiveness of different cognitive-behavioral treatments for individual children. Results of this study indicate that a case formulation approach may enhance our ability to make differential decisions regarding treatment selection within a theoretical framework, while preventing the profusion of characteristics which are unique to each depressed child from clouding the decision-making process.

In this study, case formulations were meaningful for professionals making decisions about treatment, and these formulations guided treatment selection along different paths than when only minimal information (age, diagnostic information) was provided. When case formulations were provided, participants tailored their selection of treatments to etiological factors on the basis of cognitive-behavioral theory and rationale. It appears that when case formulations were not provided, however, participants tended to rely on age to identify appropriate treatments.

#### Treatment Selection and Pathogenic Process

A major tenet of this investigation was that, if given information on the etiology of a child's depression, clinicians would match specific treatments to those etiologies. Consistent with our hypotheses, participants successfully matched cognitive treatments to cognitive etiologies, social skills treatments to social skills deficit etiologies, and environmental treatments to environmental etiologies when provided with case formulations of children's depression.

Cognitive Restructuring, Cognitive Modeling and Cognitive Self-Instruction Training were all highly endorsed for the Cognitive Distortions vignettes, receiving average ratings in the "clearly appropriate" range. Parent Training was also rated as

“clearly appropriate,” indicating that participants also attended to environmental factors within these vignettes. In contrast, Self-Control Training, Activity Scheduling, and Enriched Reinforcement Settings were deemed “probably appropriate,” and Social Skills Training and Relaxation Skills Training were judged less enthusiastically (i.e., “possibly appropriate”).

Within the Social Skills Deficit vignettes, a larger variety of treatments were highly endorsed. Participants did match treatments to etiology for these vignettes, with Social Skills treatments rated most favorably overall. A closer examination of individual treatment mean scores, however, reveals that only Social Skills Training was rated as “definitely appropriate,” while Self-Control Training and Relaxation Skills Training were rated as “probably appropriate.” In contrast, Parent Training received a higher endorsement, equivalent to a “clearly appropriate” rating. All three cognitive treatments and the remaining environmental treatments each received a “probably appropriate” rating. Overall, then, it appears that the children described in the Social Skills Deficit vignettes were seen as in need of a broader range of treatments, of which social skills treatments were certainly a significant part. This may speak to the salience of cognitive and environmental factors in the *phenomenology* of depression, apart from its theoretical origin, when making decisions about treatment.

Environmental Deficit vignettes yielded the most powerful endorsements of treatments matched to etiology. Parent Training was rated as “definitely appropriate,” while Activity Scheduling and Enriched Reinforcement Settings were both rated as “clearly appropriate.” All three Cognitive treatments were rated as “probably appropriate.” Self-Control Training was also rated as “probably appropriate,” while Social Skills Training and Relaxation Skills Training were rated as “possibly appropriate.”

These findings seem to confirm the obvious – that is, when given a case formulation delineating the pathogenic process underlying a child’s depression, clinicians would choose treatments in accord with the identified underlying etiology. However, the vast majority of treatments in treatment outcome research are selected and applied without an assessment of causal and maintaining factors contributing to children’s depressive symptomatology. In this case, then, it appears that the obvious is worth

stating, as it identifies a critical difference between what is valued in clinical practice and what is applied as standard procedure in treatment outcome research.

### Treatment Selection and Age

We were secondarily interested in determining whether participants would make decisions based on age in accord with maturational and cognitive (e.g., Piagetian) theories of development. As children mature, they move from a state of dependency on others to meet their basic needs to a state of increased autonomy and relative independence. During the preschool years, children are less able to reason themselves out of distressing situations and more likely to use denial or withdrawal to avoid unpleasant events; they are therefore predominantly reliant upon adults to manage their negative affective experiences (Cole & Kaslow, 1988). Middle childhood marks a clear transition from dependence upon interpersonal sources of affect regulation to more intrapersonal regulation, as children acquire the ability to reflect upon their internal experience, problem-solve, and to engage in self-monitoring, self-evaluation, and self-reinforcement (Cole & Kaslow, 1988; Weisz, Rudolph, Granger, & Sweeney, 1992). As children reach adolescence, their capacities for self-thought, generalization, projection from the present to the future, and behavioral control of affect become more sophisticated and internalized, similar to those of adults (Weisz et al., 1992; Zahn-Waxler, Kochanska, Krupnick, & McKnew, 1990).

Depressive symptoms in younger children would, therefore, be expected to be more affected by environmental phenomena and parental behavior, and more amenable to treatments targeting these systems, than would depression experienced by older children. Treatments for children in middle childhood might be expected to include more operant-based approaches targeting the facilitation and/or correction of the problem-solving and self-reflection skills which are emerging during that phase of development. Children entering adolescence would be assumed to be more cognitively sophisticated and, therefore, more likely to experience depression which is characterized by cognitive distortions and errors. Correspondingly, treatments selected for children in this phase of development might emphasize cognitive approaches as opposed to environmental or skills deficit approaches.

When age was examined independent of pathogenic process, some significant differences related to age, and consistent with expectations based on theories of development, were noted. Specifically, Cognitive treatments were rated significantly higher for vignettes of 14-year-olds than for vignettes of 6-year-olds, and Environmental treatments were rated significantly higher for vignettes of 6-year-olds than for vignettes of 14-year-olds. These findings suggest that participants in this study discriminated among treatment strategies on the basis of age in a manner consistent with theories of child development.

Overall, however, discrimination between treatment strategies on the basis of age was less defined than discriminations made on the basis of pathogenic process. For the vignettes of 6-year-olds, Parent Training and Enriched Reinforcement Settings were rated as “clearly appropriate”, and all other strategies were rated as “probably appropriate”, with the exception of Relaxation Skills Training, which was rated as “possibly appropriate”. For the vignettes of 10-year-olds, Parent Training and Cognitive Restructuring were rated as “clearly appropriate”, and all other treatment strategies were rated as “probably appropriate”. For the vignettes of 14-year-olds, Cognitive Restructuring was rated as “clearly appropriate”, and all other strategies were rated as “probably appropriate”. In other words, while participants did make some treatment selection decisions on the basis of age (and, we assume, development), they did not tend to eliminate strategies readily, but rather, entertained a variety of options as appropriate alternatives. This tendency suggests that a child’s age (or developmental phase) is insufficient information for the critical *elimination* of treatments for depression.

When no case formulation was presented (i.e., in the Control vignettes), age tended to play a larger part in the treatment selection process. In the vignettes of 6-year-olds, two environmental strategies and one cognitive strategy were rated highest. In contrast, one treatment strategy from each category was represented in the top three choices for the vignettes of 10-year-olds. Two cognitive strategies, along with Parent Training, were rated highest for the vignettes of 14-year-olds. These trends suggest attention to developmental factors in the delineation of appropriate treatments, as the professionals participating here gravitated toward environmental interventions for the younger children and toward cognitive treatments for the older children. Although still

present, age-related trends are not as obvious for the vignettes in which case formulations were provided. This suggests that etiology contributed significantly to treatment decisions, independent of those decisions made on the basis of age and developmental phase.

### Parent and Family Factors

Parental conflict was a theme carried through all vignettes, possibly leading participants to consistently endorse parent training as an appropriate treatment choice. The inclusion of parental conflict in each vignette is consistent with the notion that broader family issues often exist in the families of disordered children (Ingman, 1996). This being said, it is worth noting that, all else being equal, Parent Training was the clear favorite for the treatment of depression. This treatment strategy was either the first or second highest rated treatment in each vignette, consistently rated as either clearly or definitely appropriate, and it was the highest rated of the nine treatments across all vignettes. In addition, the majority of “other treatments” suggested in the write-in portion of the survey involved family or marital therapy. Clearly, the majority of participants in this study would choose to include parent training and family therapy, at least as adjuncts to child-focused treatments for depression, if not as primary treatment modalities for this disorder. This finding is consistent with the expectation that clinicians would base treatment selection on salient causal and maintaining factors. Parental conflict can be viewed as a case formulation “constant,” playing a causal and/or maintaining role in the depression of children in each of the twelve vignettes. On the other hand, the preference for parent training noted here may represent a comfort level with this approach compared to others, or it may simply reflect the inherent need for at least limited parent involvement in the treatment of any child, regardless of the child’s particular difficulties or the clinician’s overall approach.

The added benefit of including parents and families in the treatment of children with internalizing disorders is as yet unclear, however. Studies including parent and family-focused treatment components in the treatment of adolescents with depression (e.g., Lewinsohn, Clarke, Hops, & Andrews, 1990) and in the treatment of childhood anxiety (e.g., Barrett, Dadds, & Rapee, 1996) have yielded only partial support for this approach. In the study conducted by Lewinsohn and colleagues, the addition of a parent

component yielded positive but statistically insignificant benefits. In the Barrett et al. study, the addition of a family component appeared significant only for pre-adolescents. Despite the supposition that parent involvement would be most essential for younger children, and limited findings which support the importance of parents in the treatment of young children (e.g., Barrett et al.), we have not yet empirically investigated treatments for depression in younger children which directly involve parents or families.

### Limitations of Study

Results of this study were positive, supporting both the primary hypotheses (related to pathogenic process) and, to a lesser but still significant extent, the secondary hypotheses (related to age) put forth. A number of practical and conceptual limitations must be considered, however, in the interpretation of these results.

The method of participant recruitment used and low response rate encountered in this study limit our ability to apply these findings to the general population of cognitive-behavioral clinicians. First, the e-mail recruitment method limited our potential sample to those able and willing to respond to an e-mail message. In addition, participants in this study, recruited on the basis of membership in a professional organization supporting the development of cognitive-behavioral therapy, were included regardless of their reported level of clinical activity. Therefore, although we can safely assume that participants possessed familiarity with cognitive-behavioral theories and therapies, we cannot consider our sample to represent cognitive-behavioral “clinicians” per se. The low response rate (19%) casts further doubt on whether our sample is representative of cognitive-behaviorally oriented professionals in general.

Another potential area of weakness for this investigation lies in the use of the TSC. One potential problem is the method of selection of specific treatments to be included on the TSC as representative of cognitive, social skills, and environmental treatments. These treatments were originally developed on the basis of cognitive-behavioral theory, and their inclusion in the TSC was also guided by cognitive-behavioral rationale. Further, the face validity of each treatment as belonging to either the cognitive, social skills, or environmental category of treatments was confirmed by two independent raters. The validity of each treatment as belonging to a distinct category was not, however, subjected to empirical scrutiny. We cannot, therefore, be certain that the

individual treatment choices were accurate exemplars of the category of treatments they were intended to represent. In addition, treatment strategies included in the TSC were not operationally defined for participants. Participants responses may, therefore, be based on different interpretations of the same treatment strategy.

The most obvious limitation of this study from a conceptual standpoint is the use of hypothetical case formulations of fictional children, rather than descriptions of actual children, who would almost certainly be more complex and less easily categorized than their fictional counterparts. The intent here was to demonstrate that a number of meaningful “prototypes” of childhood depression could be used to elicit the differential selection of treatments on the basis of cognitive-behavioral theory and rationale, and the Cognitive Distortion, Social Skills Deficit, and Environmental Deficit prototypes utilized in this study were developed on the basis of cognitive-behavioral theories of depression. We do not, however, know whether these prototypes would stand the test of social validation by clinicians, nor do we know whether the theories upon which they are based are adequate to represent the majority of depressed children. Shirk and Russell (1996) have argued that consideration of theories from dynamic, client-centered, and cognitive camps should all be considered in the development of a set of prototypes for childhood disorder. Indeed, it has been observed that the cognitive-behavioral techniques most often studied in treatment research are supplemented in clinical practice by individual psychotherapy, psychodynamically oriented psychotherapy, and family therapy (Kazdin et al., 1990). It may well be, then, that cognitive-behavioral prototypes would be insufficient to represent the range of etiologies for childhood depression encountered in clinical practice. Studies exploring clinicians’ ability to categorize depressed children within the prototypes presented here would speak to the adequacy of both the prototypes and the theories on which they are based.

Nine “Treatment” and three “Control” conditions were utilized in this study. The inclusion of more conditions would have been useful in eliciting additional information. For example, it would have been optimal to have “Age Control” vignettes in addition to the “Pathogenic Process Control” vignettes utilized here in order to more fully explore the relationship between age and treatment selection. It would also be desirable to include a vignette in which neither age nor pathogenic process was identified, in order to

determine participants' responses to a situation in which only a minimal amount of diagnostic information is given. The control vignettes utilized in this study were intended to represent "intake" information, typical of the type of information available to mental health professionals during their first meeting with a child. For this reason, age was considered essential and, therefore, neither an "Age Control" nor a "Diagnosis Only" condition was included.

### Manualized Treatments Revisited

Despite the criticisms of manualized treatments and nomothetic approaches to treatment selection, and our less than optimal success at employing these approaches to successfully treat children, it appears that alternatives to these approaches (e.g., "treatment as usual" in clinical settings) are not faring well in comparison. For example, Weisz, Huey, and Weersing (1998), in an examination of nine studies involving treatment of clinic-referred children treated by practicing clinicians in clinical settings, found that children treated in these studies were no better off than untreated children following treatment (mean effect size = .01). Although the small number of clinically-based treatment studies precludes an adequate assessment of the effectiveness of any particular treatment in clinical practice, these results are at least disheartening. "Clearly, based on these analyses, outcomes associates with 'treatment as usual' are unsatisfactory, if not alarming" (Ollendick & King, in press, p. 36).

Manualized treatments contribute to our ability to conduct methodologically sound research, and are, in fact, required to demonstrate the efficacy of any given treatment approach according to the guidelines set forth by the APA Task Force. From the above example, it appears that they may also lead to more successful treatment efforts than more fluid and idiosyncratic approaches to treatment selection. At present, manuals provide guidelines that describe treatment procedures and therapeutic techniques and, in some cases, provide an underlying theory of change (Ollendick & King, in press). It appears, then, that to discard manualized approaches to treatment in favor of more idiographic approaches would be foolhardy. Nor should we abandon idiographic approaches in the absence of well-conducted investigations of their effectiveness. We might best meet our goals for the identification of efficacious treatments by "carefully refining the manuals that we do have to make them more clinician-friendly, determining



how they can be used in a clinically sensitive and flexible manner” (Ollendick & King, in press, p. 45). A case formulation approach to treatment selection provides a method for guiding the flexible application of manualized treatments within a structural framework. For example, by utilizing case formulations in the selection of treatment, manualized treatments could be systematically tailored for individual children via the extraction of smaller treatment modules from the overall package. Alternatively, or in addition, the case formulation could dictate the order of presentation or level of priority assigned to each strategy within a manualized package. In these ways, we would be allowing standards of clinical practice to inform our research efforts while retaining the structure necessary to demonstrate the efficacy of our approaches. A case formulation approach, when applied to the selection of standardized treatment packages, could provide guidelines for the use of clinical judgement and the flexible application of treatment strategies in a manner which would allow for the empirical scrutiny of the efficacy of the treatments as well as the utility of the case formulation in selecting treatment strategies.

### Conclusion

The aim of this study was to determine the impact of case formulation on the selection of individual treatments for childhood depression. Our results provide confirmation that case formulation is an important step in the treatment of childhood depression. It is clear from the results reported here that clinical judgement is guided by case formulations, and that treatment recommendations can be successfully matched to pathogenic processes on the basis of case formulations. In this study, treatment recommendations based on case formulations were different from those recommended on the basis of symptomatology and diagnosis alone. To the extent that significantly different mean ratings were observed, we can conclude that participants generally agreed in their selections of appropriate treatments for children based on case formulations. Age of the child being treated was also an important factor contributing to differential decisions regarding treatment.

These findings speak only to the impact of case formulation on treatment *selection*, however. A number of tasks must be accomplished before we can adequately assess the impact of case formulation on treatment *efficacy* (as demonstrated via randomized clinical trials in laboratory settings) or *effectiveness* (in clinical practice). As

already mentioned, we must derive an adequate set of prototypes representative of pathogenic processes underlying childhood depression. To adequately investigate the merits of the case formulation approach to treatment selection, we must also develop assessments to aid in the identification of accurate case formulations. No assessments have yet been empirically validated for this use, although a battery of tests for the identification of pathogenic processes in internalizing disorders has been proposed (Butcher, Goza, Ingman, Lilly, & Seligman, 1997). Such assessments are essential not only to the development of accurate case formulations, but also to the systematic assessment of the hypothesized mechanisms of change during treatment. We also need methods for validating the accuracy of our case formulations via, for example, interjudge reliability of case formulations or relation of case formulations to treatment outcome (Persons, 1991). When these pieces are in place, we can begin to investigate the impact of case formulation on the effects of our treatments in research settings and, ultimately, in clinical practice. The true significance of this study and others like it will be realized in the context of well-controlled treatment outcome studies, in which the case formulation approach is systematically compared to more traditional models of treatment selection, and in which supposed mechanisms of change are routinely examined.

Clinicians, and especially psychologists (as compared to psychiatrists), have favorably endorsed the importance of treatment outcome research and have indicated that it has an effect on what they do in their clinical practice. They have also placed a high priority on identifying child and family characteristics in relation to treatment outcome (Kazdin, Siegel, & Bass, 1990). Inasmuch as the ultimate goal of treatment outcome research is to inform clinical endeavors, it is essential that we redouble our efforts to ensure that our research is sensitive to the realities of clinical practice. The present study was conducted in an effort to move us in that direction. Here, we have confirmed that the case formulation approach is useful in the differential selection of empirically supported cognitive-behavioral treatments for childhood depression.