Chapter Four

Results

Sample Characteristics

One hundred-fourteen participants responded using Form 1 of the TSC, and 123 participants responded using Form 2. One-way multivariate analysis of variance (MANOVA) revealed no significant effect of order of presentation of TSC items on selection of treatments, Wilk’s $\Lambda = .96$, $F (9, 227) = 1.13$, $p = .34$.

Analyses were conducted on the 12 groups to determine if age, sex, years of post-doctoral experience, or percent of professional time devoted to clinical work differed among the 12 groups. Univariate ANOVAs revealed no significant differences among the 12 groups with regard to age, $F (11,225) = 1.12$, $p = .33$, years of experience, $F (11,225) = 1.02$, $p = .43$, or percent of time devoted to clinical work $F (11,223) = 1.20$, $p = .29$. A 2X12 Chi-square analysis examining group differences on sex indicated that the twelve groups differed on this variable, although not significantly, $\chi^2 (11) = 17.77$, $p = .10$. This finding suggests a trend, with more women than men responding, which is consistent with literature on differences between genders on survey responsiveness (Green, 1996). Table 5 provides a summary of numbers of men and women responding to each vignette.

Correlation coefficients were computed (within each of the 12 groups) for treatment ratings and participants’ years of experience. The results of these correlational analyses are shown in Table 6. These results show that there were no significant correlations between years of experience and ratings of Cognitive, Social Skills, or Environmental treatments.

Correlation coefficients were also computed (within each of the 12 groups) for treatment ratings and percent of time devoted to clinical activities. The results of these analyses are shown in Table 7. Positive correlations were noted for environmental treatments within vignettes 9 (14-year old with social skills deficit) and 12 (10-year-old with environmental deficit). These findings suggest that more clinically-oriented mental health professionals tended to view parent training as more critical to successful treatment, at least in some instances. If the Bonferroni method were employed to adjust for the large number of correlations conducted and reduce the likelihood of Type I error,
each correlation would be tested at the .001 level. When this method is applied, the correlations noted here are no longer significant.

Since the sample was comprised of more professionals claiming a specialization in adult populations than professionals claiming a child specialization, analyses were conducted to determine whether specialization had an impact on treatment selection. MANOVA revealed no significant effect of specialization ("child" or "adult") on ratings of Cognitive, Social Skills, or Environmental treatments, Wilk’s $\Lambda = .98, F(3, 197) = 1.09, p = .35.$

**Descriptive Statistics**

Overall, Parent Training was the highest rated treatment, $M = 4.08, SD = 1.16,$ followed by Cognitive Restructuring, $M = 3.61, SD = 1.34,$ and Enriched Reinforcement Settings, $M = 3.47, SD = 1.36.$ Mean ratings for each treatment are summarized in Table 8.

Differences in treatment ratings were noted for each of the pathogenic processes (collapsed across age). When total scores for each category of treatment (e.g., Cognitive treatments, Social Skills treatments, and Environmental treatments) were considered, Environmental treatments were rated highest for Control vignettes, $M = 10.19, SD = 2.27;$ Cognitive treatments were rated highest for Cognitive Distortion vignettes, $M = 11.59, SD = 2.71;$ Social Skills treatments were rated highest for Social Skills Deficit vignettes, $M = 10.36, SD = 1.91;$ and Environmental treatments were rated highest for Environmental Deficit vignettes, $M = 13.12, SD = 2.45.$ Table 9 contains summary information on treatment rating means and standard deviations for each pathogenic process.

For each of the three ages (collapsed across pathogenic process), Environmental treatments were rated highest. Table 10 contains summary information on treatment rating means and standard deviations for each age.

**Planned Analyses**

A two-way MANOVA was conducted to determine the effects of children’s age and underlying pathogenic process on the selection of treatment strategies. Follow-up ANOVAs and pair-wise comparison post-hoc analyses were conducted to test more specific hypotheses.
Treatment ratings were examined in two ways to fully address the hypotheses put forth. In order to examine differential ratings among Cognitive, Social Skills, and Environmental treatments, total scores were tallied for each category of treatment and analyses were conducted using these total scores as the dependent variables. For example, the total score for Cognitive Treatments would be comprised of the individual ratings for Cognitive Restructuring, Cognitive Modeling, and Cognitive Self Instruction Training, with a the highest possible score being 15. Likewise, the Social Skills Treatments total score would be comprised of the individual ratings for Social Skills Training, Self-Control Skills Training, and Relaxation Skills Training, and the total score for Environmental Treatments would be comprised of the individual ratings for Parent Training, Enriched Reinforcement Settings, and Activity Scheduling. In order to more closely examine participants’ ratings of individual treatment options, analyses were also conducted using the ratings of the nine individual treatments as the dependent variables. The following results include both the analyses of total scores and the analyses of individual treatment ratings.

**Primary Hypothesis 1: Effect of Pathogenic Process on Treatment Selection**

**Primary Hypothesis 1a: Mental health professionals will rate treatments differently when presented with different information regarding underlying pathogenic processes.** Significant differences were found among the four pathogenic process vignettes on the ratings of the 9 treatment strategies, Wilks’ $\Lambda = .28, F (27, 634.39) = 13.01, p < .01$, supporting the hypothesis that mental health professionals vary their treatment selections for depressed children on the basis of underlying pathogenic processes. Table 9 contains the treatment rating means and standard deviations for the 4 pathogenic process groups.

ANOVA$s$ on the ratings of each individual treatment strategy were conducted as follow-up tests to the MANOVA. All ANOVA results, with the exception of the ANOVA on Operant-Based Self-Control Skills Training, were significant. Table 11 summarizes ANOVA results.
Primary Hypothesis 1b: Mental health professionals will rate treatments differently when provided with information regarding pathogenic processes underlying children’s depression than when presented with “presenting problem” and diagnostic information alone. Post-hoc analyses to the univariate ANOVAs consisted of conducting pairwise (Tukey Test) comparisons to determine whether treatments were rated differently when given information on pathogenic process than when given only minimal diagnostic information. These results are summarized in Table 12. Results of these analyses indicated that, based on the analyses of total scores, Cognitive treatments were rated significantly higher for Cognitive Distortion vignettes than for Control vignettes, $M_{\text{control}} - M_{\text{cog dis}} = -1.76$, $SE = .48$, $p < .01$. More specifically, based on analyses of individual treatments, Cognitive Restructuring and Cognitive Modeling were rated significantly higher for Cognitive Distortion vignettes than for Control vignettes.

Similarly, Social Skills treatments were rated significantly higher for Social Skills Deficit vignettes than for Control vignettes, $M_{\text{control}} - M_{\text{soc skl def}} = -2.60$, $SE = .38$, $p < .01$. Specifically, Social Skills Training and Relaxation Skills Training were rated significantly higher for Social Skills Training vignettes than for Control vignettes.

Finally, Environmental treatments were rated significantly higher for Environmental Deficit vignettes than for Control vignettes, $M_{\text{control}} - M_{\text{env def}} = -2.93$, $SE = .42$, $p < .01$. In this instance, all three Environmental treatments were rated significantly higher for Environmental Deficit vignettes than for Control vignettes.

Primary Hypothesis 2: Match of Treatments to Pathogenic Processes

Post-hoc pairwise (Tukey Test) comparisons were conducted to determine which pathogenic processes resulted in significantly higher or lower ratings of each treatment strategy. These results are summarized in Table 13.

Primary Hypothesis 2a: Cognitive-behavioral treatments specifically designed to treat cognitive errors and distortions will be rated higher for those vignettes describing cognitive distortions as the pathogenic process underlying the child’s depression. Cognitive Restructuring, Cognitive Modeling, and Cognitive Self-Instruction Training were hypothesized to be rated higher for those vignettes describing cognitive distortions as the pathogenic process underlying the child’s depression. Consistent with this hypothesis, total scores of Cognitive treatments were significantly higher for Cognitive
Distortion vignettes than for Social Skills Deficit vignettes, $M_{cog\,dis} - M_{soc\,skl\,def} = 2.44$, $SE = .48$, $p < .01$ or Environmental Deficit vignettes, $M_{cog\,dis} - M_{env\,def} = 2.78$, $SE = .49$, $p < .01$.

**Primary Hypothesis 2b:** Cognitive-behavioral treatments specifically designed to treat social anxiety and develop social and coping skills will be rated highest for those vignettes describing social skills deficits as the pathogenic process underlying the child’s depression. Social Skills Training, Operant-based Self-control Skills Training, and Relaxation Skills Training were hypothesized to be rated highest for those vignettes describing social skills deficits as the pathogenic process underlying the child’s depression. Consistent with this hypothesis, total scores for Social Skills treatments were significantly higher for Social Skills Deficit vignettes than for Cognitive Distortion vignettes, $M_{soc\,skl\,def} - M_{cog\,dis} = 2.83$, $SE = .40$, $p < .01$, or Environmental Deficits vignettes $M_{soc\,skl\,def} - M_{env\,def} = 3.84$, $SE = .40$, $p < .01$.

**Primary Hypothesis 2c:** Cognitive-behavioral treatments specifically designed to address environmental deficits will be rated significantly higher for the treatment of depression related to environmental deficits. Parent Training, Activity Scheduling, and Enriched Reinforcement Settings were hypothesized to be rated significantly higher for the treatment of depression related to environmental deficits. Consistent with this hypothesis, total scores for Environmental treatments were significantly higher for Environmental Deficit vignettes than for Cognitive Distortion vignettes, $M_{env\,def} - M_{cog\,dis} = 2.68$, $SE = .43$, $p < .01$, or Social Skills Deficit vignettes, $M_{env\,def} - M_{soc\,skl\,def} = 2.90$, $SE = .42$, $p < .01$.

**Secondary Hypothesis 1: Effect of Age on Treatment Selection**

Significant differences were also found among the three ages on the ratings of the 9 treatment strategies, Wilks’ $\Lambda = .80$, $F(18, 434) = 2.83$, $p < .01$, supporting the hypothesis that mental health professionals vary their treatment selections for depressed children on the basis of the age of the children they are treating. There was no significant interaction between pathogenic process and age. Table 10 contains treatment rating means for the 3 ages.

Follow-up univariate ANOVAs revealed that Cognitive Restructuring, $F(2, 225) = 8.04$, $p < .01$; Parent Training, $F(2, 225) = 3.61$, $p = .03$; Relaxation Skills Training, $F$
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(2, 225) = 3.90, p = .02, and Enriched Reinforcement Settings, F (2, 225) = 4.18, p = .02, were rated significantly differently for children of different ages. Table 11 summarizes ANOVA results.

Secondary Hypothesis 2: Match of Treatments to Age

Post-hoc pairwise (Tukey Test) comparisons were conducted to determine which ages resulted in significantly higher or lower ratings of each treatment strategy. These results are summarized in Table 14.

Secondary Hypothesis 2a. It was hypothesized that environmental treatments (Parent Training, Activity Scheduling, Enriched Reinforcement Settings) would be rated highest for the youngest children, compared to the other two ages. Consistent with this hypothesis, total scores for Environmental treatments were significantly higher for the vignettes of 6-year-olds than for the vignettes of 14-year-olds, M6 – M14 = .99, SE = .36, p = .02, although there was no significant difference in ratings between the vignettes of 6-year-olds and 10-year-olds or between the vignettes of 14-year-olds and 10-year-olds.

Secondary Hypothesis 2b. Social and coping skills interventions (Social Skills Training, Operant-Based Self-Control Skills Training, and Relaxation Skills Training) were hypothesized to be rated highest for the children in middle childhood, compared to the other two ages. This hypothesis was not supported by the data.

Secondary Hypothesis 2c. It was hypothesized that cognitive interventions (Cognitive Restructuring, Cognitive Modeling, and Cognitive Self-Instruction Training) would be rated highest for the oldest children, compared to the other two ages. Consistent with this hypothesis, total scores for Cognitive treatments were significantly higher for the vignettes of 14-year-olds than for the vignettes of 6-year-olds M14 – M6 = 1.07, SE = .41, p = .02, although there was no significant difference in ratings between the vignettes of 14-year-olds and 10-year-olds or between the vignettes of 10-year-olds and 6-year-olds.