Evaluation of the How I Think Questionnaire

Implemented at

Jefferson Hills – Lakewood

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Cognitive distortions have been shown to be directly related to criminal and antisocial behavior (Andrews, Dowden, 1999; Gendreau, Little, Goggin, 1996). Cognitive distortions are inaccurate or rationalizing attitudes, thoughts, or beliefs concerning one's own or other's social behavior (Gibbs, 1991, 1993; Yochelson and Samenow, 1976). Self-serving cognitive distortions are those antisocial attitudes that are associated with antisocial behaviors. These thinking patterns may be criminogenic in that they insulate the individual from blame or a negative self-concept (Barriga, Landau, Stinson, Liau, Gibbs, 2000). Gibbs and Potter (1992) have delineated the self-serving cognitive distortions into four categories:

- Self-Centered: According status to one's own views, expectations, needs, rights, immediate feelings, and desires to such an extent that legitimate views of others are scarcely considered or are disregarded.
- Blaming Others: Misattributing blame for one's harmful actions to outside sources, especially to another person, a group, or a monetary aberration (in a bad mood); or misattributing blame for one's victimization or other misfortune to innocent others.
- Minimizing/Mislabeling: Depicting antisocial behavior as causing no real harm or as being acceptable or even admirable; or referring to others with belittling or dehumanizing labels.
- Assuming the Worst: Gratuitously attributing hostile attention to others, considering a worst case scenario for a social situation as if it were inevitable, or assuming that improvement is impossible in one's own or other's behavior.

These cognitive distortions may manifest themselves into externalizing problem behaviors such as aggression and criminal behavior (Yochelson and Samenow, 1976). For example, self-centered thinking errors usually stem from egocentric bias. In turn, these primary cognitive distortions may result in blatantly harmful antisocial behavior to others (Gibbs, Potter, Goldstein, 1995). Once the behavior has been engaged, the youth may experience psychological stresses such as guilt and damage to the self-image. Therefore, the secondary cognitive distortions (blaming others, assuming the worst, and minimizing) develop which permit the youth to continue the antisocial behavior by neutralizing the guilt and preventing damage to the conscience. To assess the cognitive distortions, the Jefferson Hills –Lakewood School administered the *How I Think* Questionnaire (Barriga, Gibbs, Potter, Liau, 1999).

The *How I Think* Questionnaire was developed to measure self-serving cognitive distortions as they relate to externalizing problem behavior. Four self-serving cognitive distortions were examined: self- centered (according such status to one's own views that the opinions of others are not considered), blaming others (misattributing blame to outside sources), minimizing/mislabeling (believing that antisocial behavior is acceptable, admirable, or causes no real harm), and assuming the worst (assuming that improvement is impossible, or considering a worst case scenario). The *How I Think* Questionnaire also depicts four behavioral referent scales that are manifested from the cognitive distortions: opposition/defiance, physical aggression, lying, and stealing. From these subscales, three summary scores can be computed. The overt scale measures confrontational antisocial behavior such as fighting, arguing, and temper tantrums. This scale was computed by averaging the opposition/defiance and physical aggression means.

The covert scale examines non-confrontational antisocial behavior and is developed by computing the lying and stealing means. Covert behaviors consist of concealed acts such as stealing, setting fires, and lying. The overall *How I Think* score is computed by averaging the means of all eight subscales. Higher scores indicate higher levels of cognitive distortions.

RESULTS

Demographic Information

Age at initial *How I Think* testing was computed for 69 youth during 2005 and 2006. The average age of the youth was 15.68. Approximately 13 percent of the sample was age 13 or younger and 41.9 percent of the sample was age 16 or older. When examining the current grade level at initial assessment 20 youth (28.6%) were in the seventh or eighth grade; forty percent were in the ninth or tenth grade; and 31 percent was in the eleventh or twelfth grade.

Table 1: Demographic Characteristics

Characteristics	N	%
Age at Intake:		
12 or younger	2	2.9
13	7	10.7
14	13	18.8
15	18	26.0
16	11	15.9
17	18	26.0
Mean = 15.68		
Grade Level:		
7	10	14.3
8	10	14.3
9	16	22.9
10	12	17.1
11	16	22.9
12	6	8.6

Initial *How I Think* **Data**

All Youth. The questionnaire was administered at intake and termination from the program. The data for this report included 67 different pairs of *How I Think* assessments administered from 2005 to 2006. One way to analyze the scales of the *How I Think* Questionnaire is to determine which of the three ranges (non-clinical, borderline-clinical, clinical) the score falls into. The ranges on the eight subscales can be used to provide a fine-grained analysis of the offenders. Figure 1 reveals the percentage of youth who were classified into each of the three ranges for the cognitive distortion scales. While the majority of the youth were classified in the "non-clinical" range approximately 30 to 40 percent of the youth fell into the "clinical" range for the self-centered (29.4%), the blaming others (34.3%), the minimizing (32.4%), and the assuming the worst scales (41.2%). Youth scoring in the "clinical" range report greater agreement with the cognitive distortion items than "slightly disagree" on the scale. Thus, these youth may be described as having a strong egocentric bias and a need for treatment that addresses their externalization and minimizing the consequences of their actions.

Figure 2 shows the classification of youth for the behavioral referent scales – oppositional defiance, physical aggression, lying, and stealing. Paying attention to scores on the behavioral referent subscales may provide a unique method for assessing the probabilities of certain types of behaviors. Again, the majority of the youth fell into the "non-clinical" range for all four scales. For these scales, more youth fell into the "borderline clinical" and "clinical" range. Thirty-two percent of the youth were classified in these categories for the oppositional defiant scale; 39 percent of the youth had this classification for the physical aggression scale; 46 percent of the youth were fell

Figure 1. Cognitive Distortion Scales from the How I Think Questionnaire

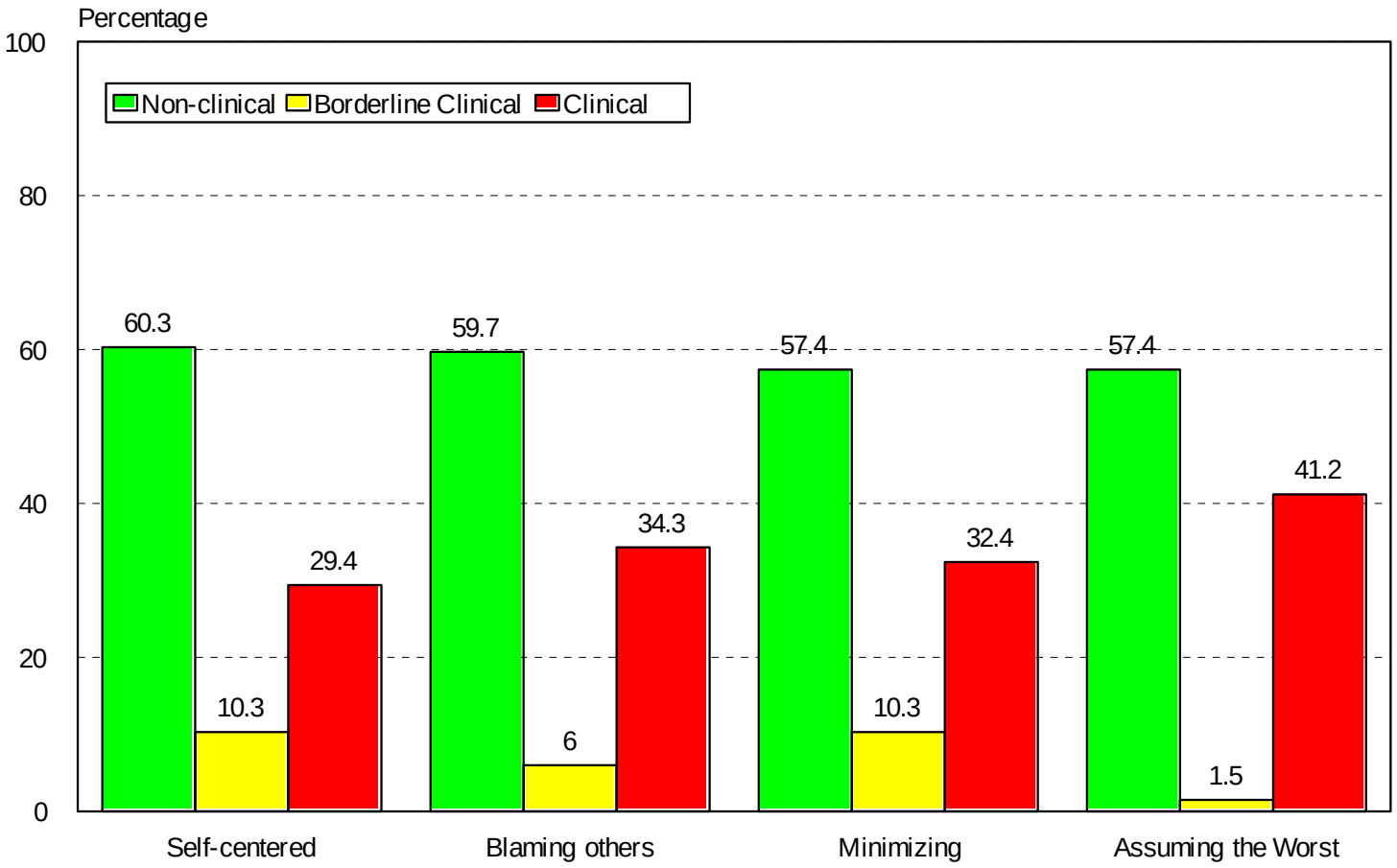
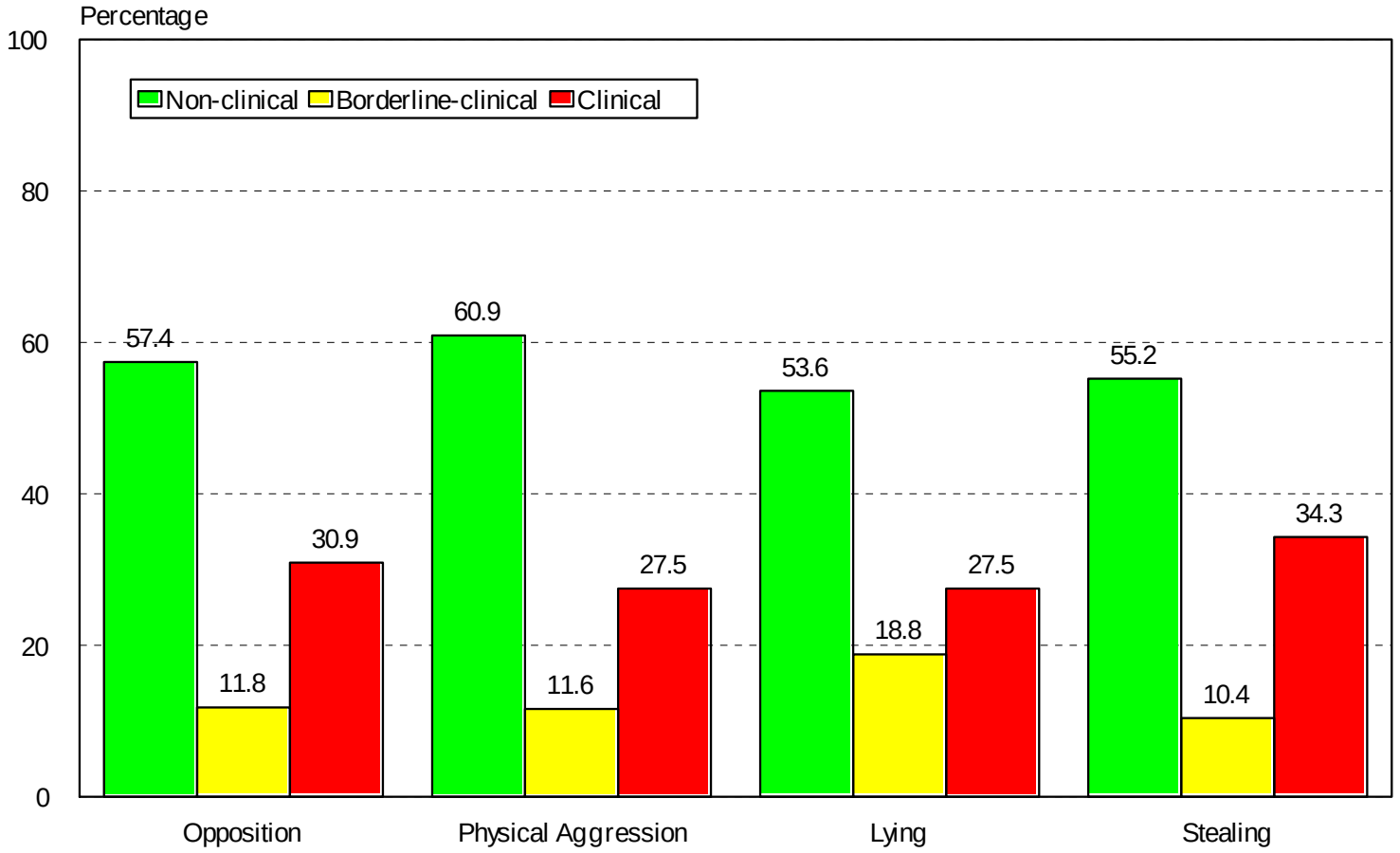


Figure 2. Behavioral Referents from the How I Think Questionnaire



into the categories for lying and 44 percent of the youth were “borderline clinical” or “clinical” in the stealing scale.

Figure 3 examines the summary scales for the *How I Think* Questionnaire. The covert scale measures the antisocial behaviors that typically do not involve direct confrontation with a victim whereas the overt scale measures behaviors that usually involve direct confrontation of the victim. According to Barriga et al. (1999), youths falling into the “borderline-clinical” and “clinical” range for the *How I Think* scale may exhibit externalizing psychopathology. Forty-two percent of the youth scored in the “borderline-clinical” or “clinical” range for the covert scale whereas 39.8 percent of the youth fell into these categories for the overt scale. When examining the overall *How I Think* scale, forty-one percent of the youth may exhibit externalizing psychopathology.

Borderline-Clinical and Clinical Youth. Another way to analyze the youth is to examine only the youth who scored in the “borderline-clinical” or “clinical” range of the *How I Think* Questionnaire to determine the specific problem areas for these youth. Figure 4 reveals the cognitive distortions for these youth. Of the four cognitive distortions, the assuming the worst scale was the most problematic with 92.9 percent of the youth scoring in the “clinical” range followed by the blaming others (75%); and the self-centered and minimizing scales (71%). When examining the behavioral referents for the “borderline-clinical” and “clinical” youth, the oppositional scale was the most problematic with 75 percent of the youth scoring in the clinical range followed closely by the stealing scale (71.4%); physical aggression (67.9%); and the lying scale (64.3%) (Figure 5). The summary scales for these youth are reported in Figure 6. The majority of the youth were classified in the “clinical” range for the overt behaviors indicating a

Figure 3. Summary Score for How I Think Questionnaire

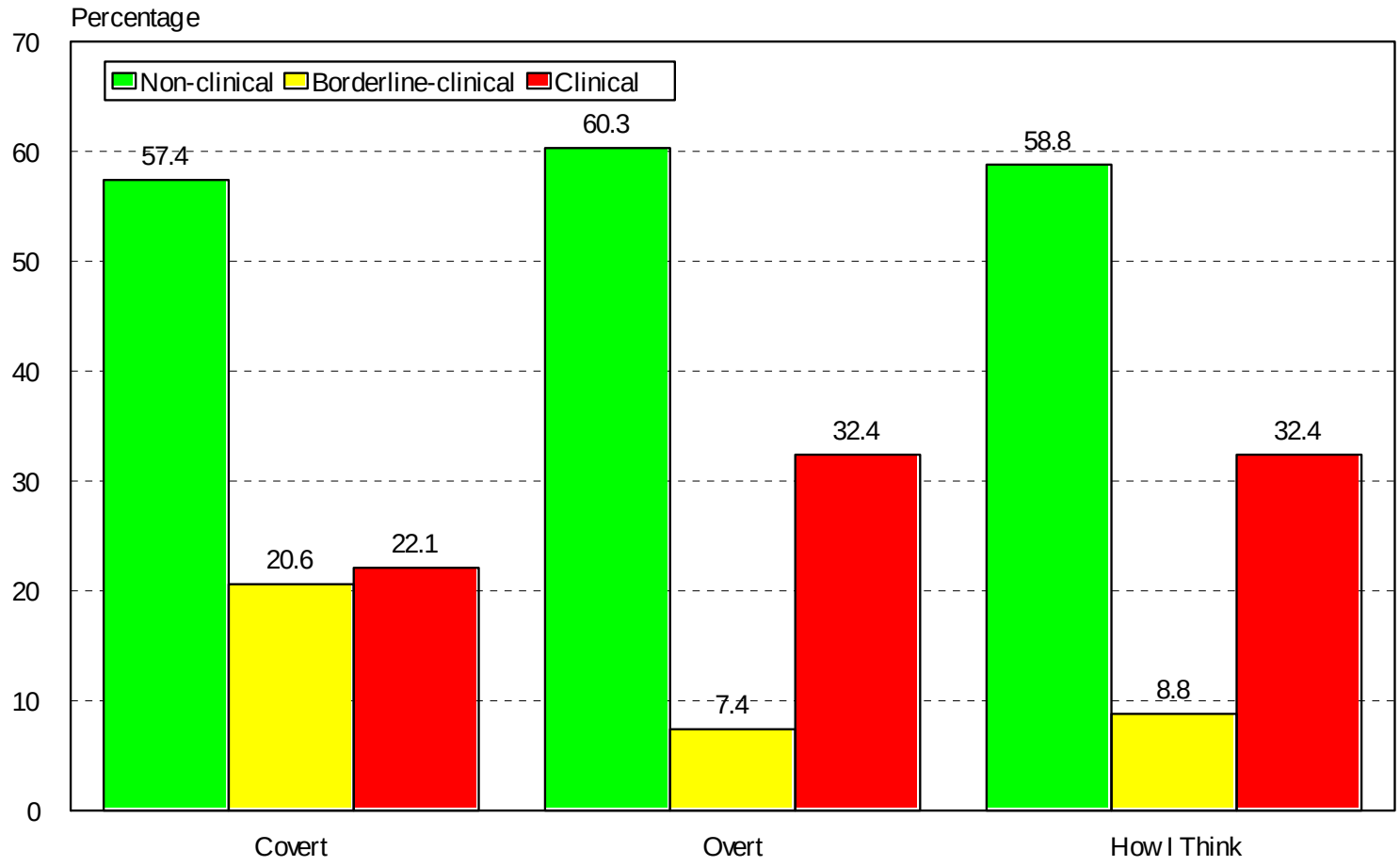


Figure 4. Cognitive Distortion Scales from the How I Think Questionnaire

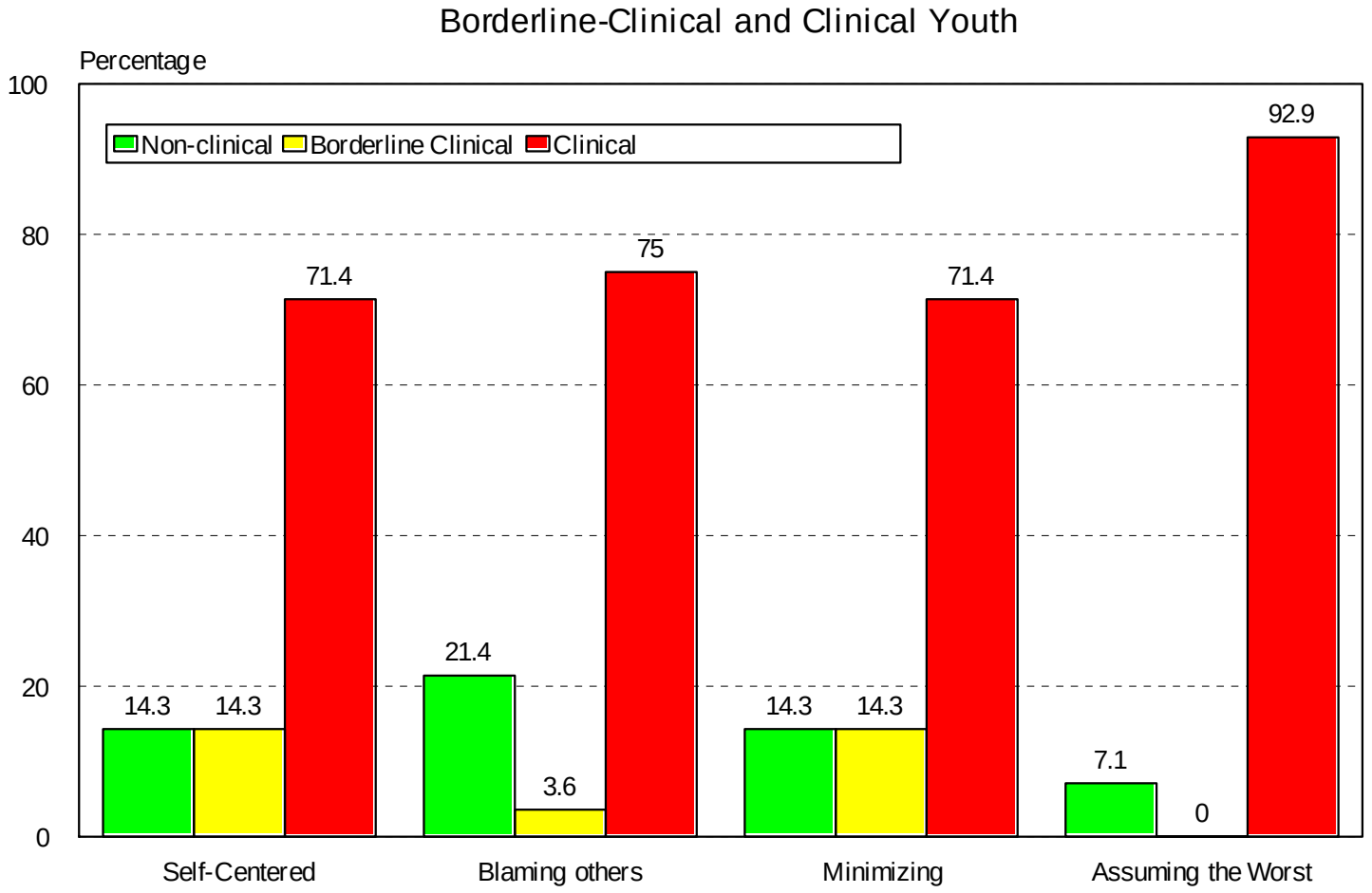
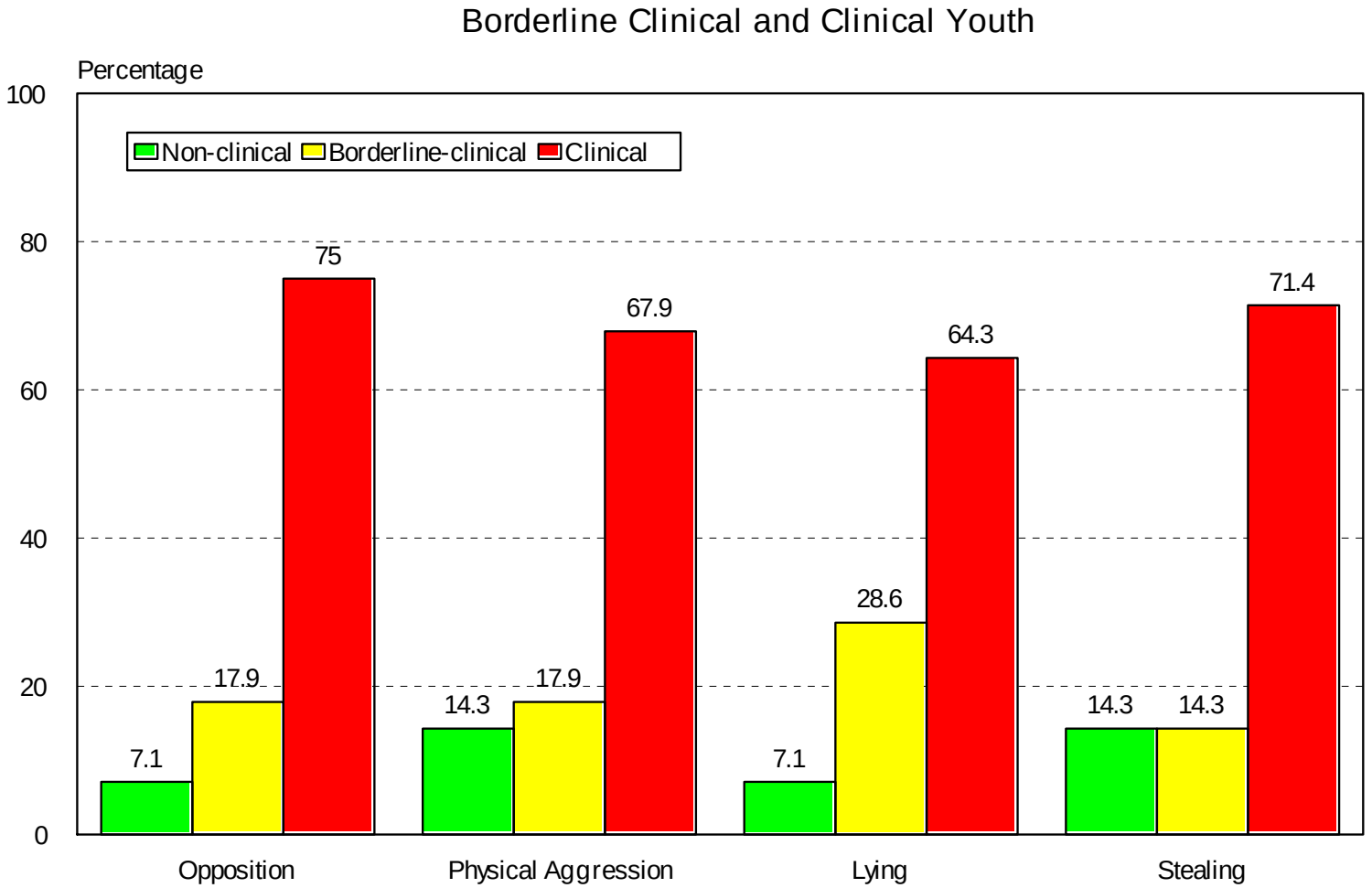


Figure 5. Behavioral Referents from the How I Think Questionnaire



greater degree for behaviors that confront a victim. Fifty-three percent of the youth were classified in the "clinical" range for the covert behaviors indicating that they will commit behaviors such as lying where there is no direct confrontation with a victim.

Changes in the *How I Think* Questionnaire

One method of examining therapeutic efficacy is to determine changes in the percentage of youths scoring within in the "non-clinical" "borderline-clinical" and "clinical" ranges from time one to time two. Theoretically, participation in treatment should increase the percentage of youth in the "non-clinical" and even "borderline-clinical" and reduce the number of youth in the "clinical" range for the cognitive distortions, behavioral referents, and summary scales of the *How I Think* Questionnaire. Figure 7 is a visual representation of the difference between time one and time two scores. For all four cognitive distortions, there was an increase in the number of youth in the "non-clinical" range from the pretest to the posttest (ranges from 6.8 % to 19.1%). Furthermore, participation in the program resulted in reductions in the number of youth in the "clinical" range. The greatest reductions were for youth in the blaming others scale (19.4%) followed closely by the self-centered scale (19.1%); assuming the worst (15.8%); and minimizing (10.3%).

Figure 8 reveals the percentage of change for the behavioral referents. Again, there was an increase in the number of youth in the "non-clinical" range for all four behavioral referents with the greatest increase occurring for the lying scale (22.9%) and the stealing scale (20.9%). Furthermore, there were reductions in the number of youth in the "borderline clinical" and "clinical" ranges for the scales. The greatest reduction occurred in the stealing scale (17.9%); oppositional defiant scale (14.5%); and the lying

Figure 6. Summary Score for How I Think Questionnaire

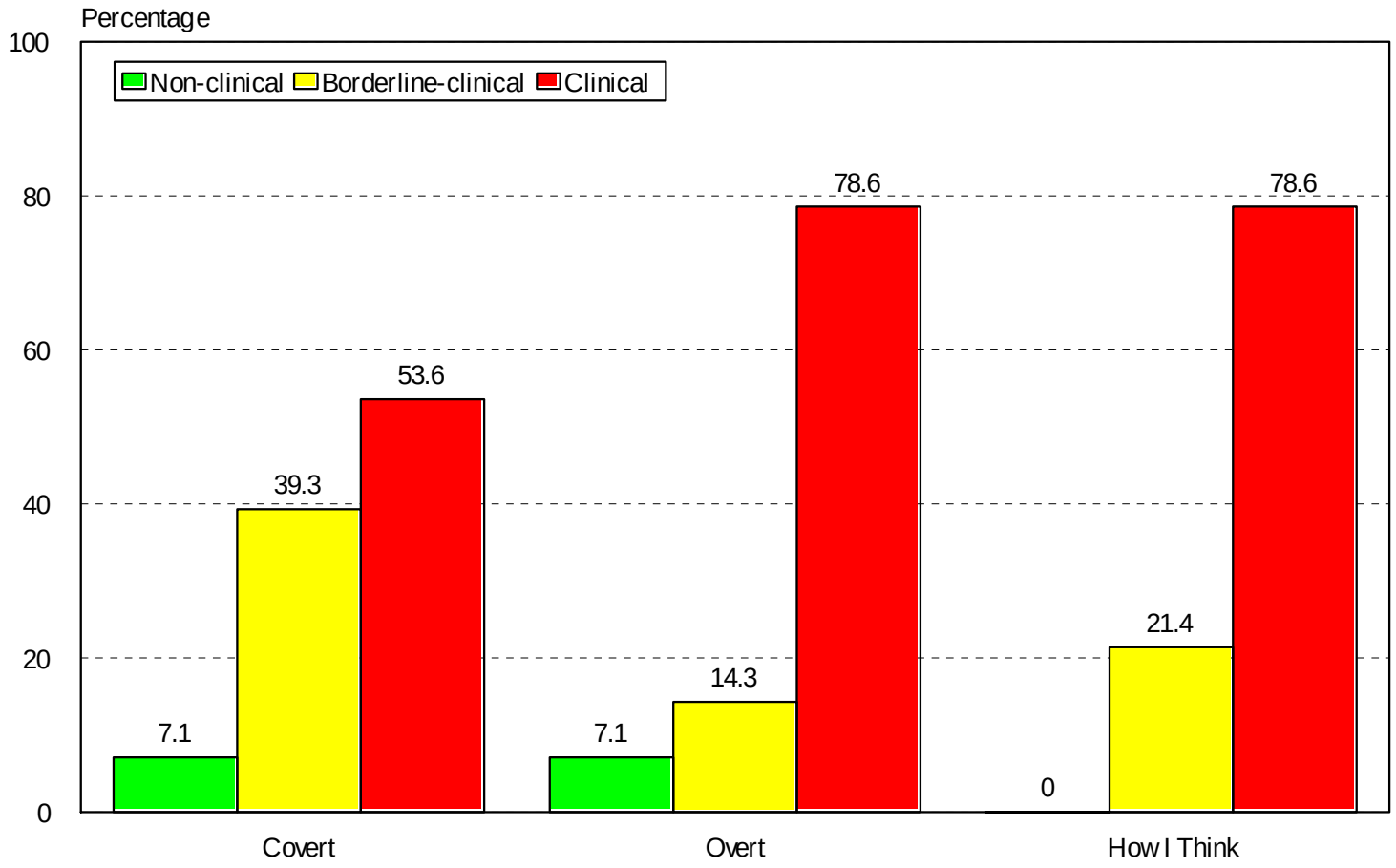


Figure 7. Percentage of Change Time 1 and Time 2 in the Cognitive Distortions

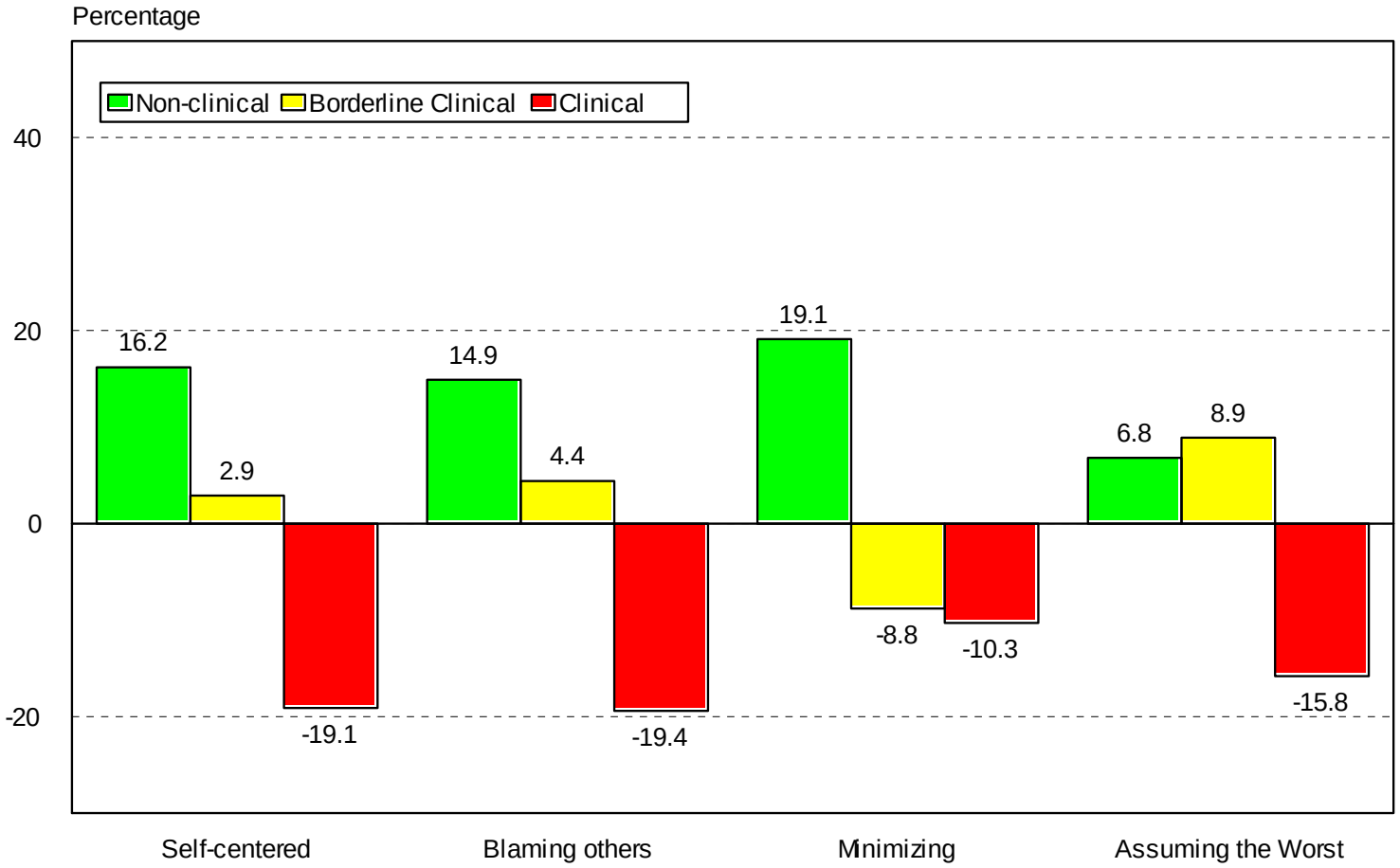
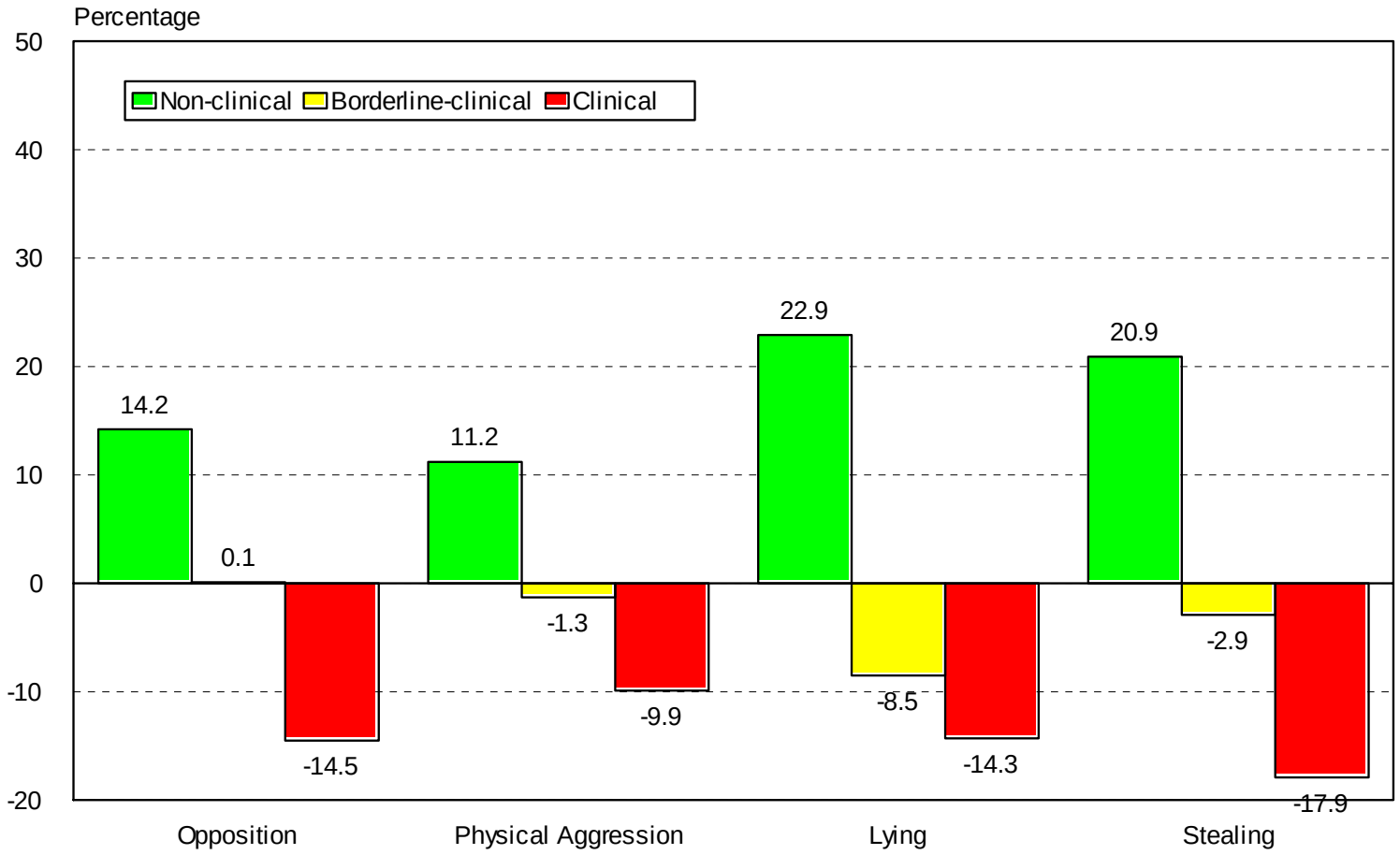


Figure 8. Percentage of Change Time 1 and Time 2 in the Cognitive Distortions



scale (14.3%). When examining the summary scales, the same patterns emerge (Figure 9). There was a 20.5 percent increase in the number of youth in the "non-clinical" range for the covert scale; a 13.2 percent increase for the overt scale; and a 14.7 percent increase in the number of youth in the "non-clinical" range for the overall *How I Think* Questionnaire. Moreover, large reductions were found in the "borderline-clinical" and "clinical" ranges for the summary scales. Specifically, there was a 16.2 percent decrease in the number of youth in the overt scale followed by an 11.8 percent decrease in the *How I Think* scale; and a 7.4 percent decrease in the covert scale.

To determine the efficacy of the program on the youths' cognitive distortions, comparison of means tests were computed between time 1 evaluations and time 2 evaluations. Theoretically, participation in a treatment program would result in lower scores at the time 2 measure on the cognitive distortions, behavioral referents, and summary scales for the *How I Think* Questionnaire. An examination of Table 2 reveals significant changes in all scales. There were statistically significant reductions in the cognitive distortions, behavioral referents, and summary scales. Specifically, participation in the program resulted in lower measures of the self-centered, blaming others, minimizing, assuming the worst cognitive distortions. In turn, significant reductions were found in the oppositional defiance, physical aggression, lying, and stealing behavioral scales. Furthermore, statistically significant reductions were seen in the overt, covert, and overall *How I Think* Questionnaire during the post-test examinations.

Figure 9. Percentage of Change Time 1 and Time 2 in the Cognitive Distortions

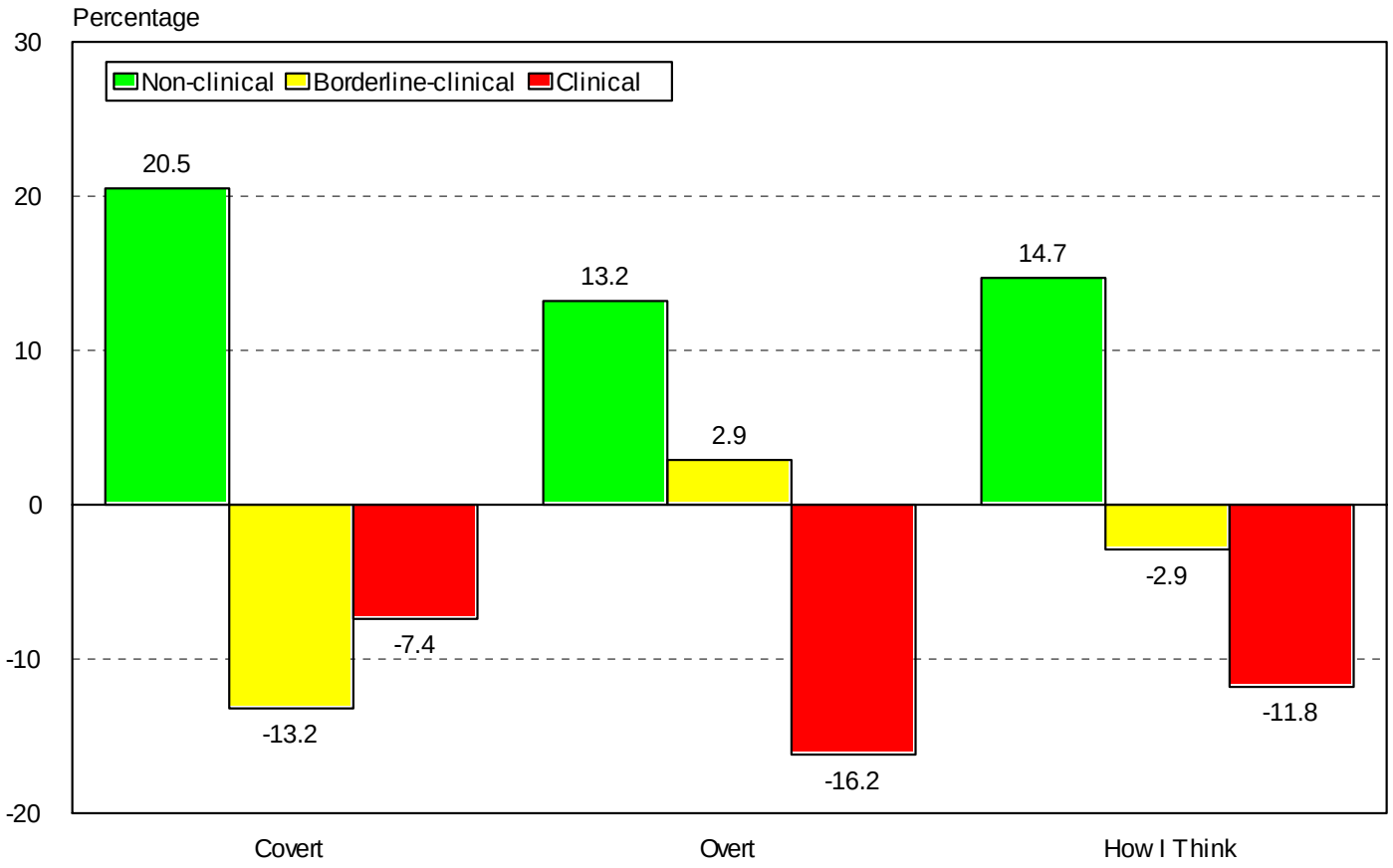


Table 2: Paired Sample t-tests on How I Think Questionnaire, Time 1- Time 2*

Scale	No. of Pairs	Time 1 Mean	Time 2 Mean	t-value	Sig
Cognitive Distortions					
Self-centered (range 0-6)	66	2.73	2.20	4.835	.000
Blaming Others (range 0-6)	65	2.80	2.24	4.167	.000
Minimizing/Mislabeling (range 0-6)	66	2.72	2.21	4.967	.000
Assuming the Worst (range 0-6)	66	2.73	2.32	3.404	.001
Behavioral Referents					
Opposition-Defiance (range 0-6)	65	2.95	2.40	4.575	.000
Physical Aggression (range 0-6)	67	2.65	2.29	3.093	.003
Lying (range 0-6)	67	2.96	2.48	4.157	.000
Stealing (range 0-6)	66	2.53	1.93	5.291	.000
Summary Scores					
Covert (range 1-6)	66	2.67	2.18	5.101	.000
Overt (range 1-6)	66	2.81	2.33	4.175	.000
How I Think (range 1-6)	66	2.71	2.24	5.030	.000

SUMMARY AND CONCLUSIONS

According to Barriga et al. (1999), higher scores on the scales indicate higher levels of cognitive distortions and are associated with criminogenic behavior. Thus, treatment programs can reduce the likelihood of antisocial/criminal behavior by reducing youths' cognitive distortions. An examination of the data indicated that approximately 40 percent of the youth were initially classified in the "borderline-clinical" and "clinical" category of the *How I Think* summary scale indicating externalizing psychopathology. Furthermore, when examining the covert and overt scales of the *How I Think*, approximately one-third of the youth were classified as "clinical" in the overt scale indicating behaviors that result in direct confrontation of a victim. When examining which behaviors are more likely to result from the sample of youth, approximately 34 percent were more likely to engage in stealing; followed by oppositional defiance (30.9%); physical aggression and lying (both 27.5%). The youths' cognitive distortions revealed that 41 percent of the youth were classified as "clinical" in the assuming the worst scale; 34 percent fell into this category for the blaming others scale; 32 percent was classified as "clinical" in the minimizing scale; and 29 percent of the youth had this classification for the self-centered scale.

When examining the differences between the pretest measures and the posttest measures, statistically significant reductions were found in all scales. Specifically, participation in the program reduced the cognitive distortions; behavioral referents; and summary scales for the youth. The largest reductions in blaming others scale (19.4%); stealing scale (17.9); and the overt summary scale (16.2). Thus, the program is successful

in reducing the cognitive distortions and likelihood of the corresponding behaviors in the youth.

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