

University of Calgary Results Summary of Post-Assessment

***Measuring immediate effects of the training**

For the preliminary analyses, we divided the participants into two groups: a) control group (n= 36) (i.e., the group that did not receive the program); and b) treatment group (n= 41) (i.e., group that participated in program). Statistics indicate that the two groups did not differ significantly in age or intelligence. To examine differences from pre- to post-testing on each of the measures selected for this research, we conducted paired t-tests for the control and treatment groups. Future analysis will also compare statistical differences between the groups using a repeated measures design.

Behavior Assessment System for Children – Second Edition

Control Group: From pre- to post-testing, the control demonstrated significantly fewer disruptive and internalizing behaviors.

Treatment Group: From pre- to post-testing, the treatment group showed significantly stronger adaptive behaviors and significantly fewer disruptive, inattentive/hyperactive, and internalizing behaviors. Significant and positive differences were also observed on measures assessing personal and school adjustment.

Problem Solving Inventory

Control Group: No observed differences from pre- to post-testing.

Treatment Group: Highly significant improvement from pre- to post-testing on Total Problem Solving score.

Family Assessment Measure

Control: No differences from pre- to post-testing

Treatment: Significant improvement on a number of scales including Family Task Accomplishment; Family Role Performance; Family Communication; Family Affective Expression; Family Involvement; and Family Values and Norms.

Resiliency Scales for Adolescents

Control: No significant improvements

Treatment: Highly significant improvement in Mastery Total Score.

Bar-On Emotional Intelligence Quotient

Control: Significant improvement from pre- to post-testing

Treatment: Significant improvement from pre- to post-testing

Multidimensional Self-Concept Scale

Control: No significant difference from pre- to post-testing

Treatment: High significant improvement in Total Self Concept from pre- to post-testing

Descriptive Statistics

| Control vs Treatment | | Age | WasiFull4IQScore |
|----------------------|----------------|---------|------------------|
| Control | Mean | 16.1978 | 100.50 |
| | N | 36 | 36 |
| | Std. Deviation | .78262 | 8.943 |
| Treatment | Mean | 16.0893 | 104.24 |
| | N | 41 | 41 |
| | Std. Deviation | .64765 | 9.238 |
| Total | Mean | 16.1400 | 102.49 |
| | N | 77 | 77 |
| | Std. Deviation | .71120 | 9.235 |

Gender

| Control vs Treatment | | | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------------|-------|--------|-----------|---------|---------------|--------------------|
| Control | Valid | Male | 17 | 47.2 | 47.2 | 47.2 |
| | | Female | 19 | 52.8 | 52.8 | 100.0 |
| | | Total | 36 | 100.0 | 100.0 | |
| Treatment | Valid | Male | 18 | 43.9 | 43.9 | 43.9 |
| | | Female | 23 | 56.1 | 56.1 | 100.0 |
| | | Total | 41 | 100.0 | 100.0 | |

SchoolGrade

| Control vs Treatment | | | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------------|-------|-------|-----------|---------|---------------|--------------------|
| Control | Valid | 10 | 20 | 55.6 | 55.6 | 55.6 |
| | | 11 | 16 | 44.4 | 44.4 | 100.0 |
| | | Total | 36 | 100.0 | 100.0 | |
| Treatment | Valid | 10 | 22 | 53.7 | 53.7 | 53.7 |
| | | 11 | 19 | 46.3 | 46.3 | 100.0 |
| | | Total | 41 | 100.0 | 100.0 | |

SchoolActivities

| Control vs Treatment | | | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------------|-------|----------------------|-----------|---------|---------------|--------------------|
| Control | Valid | No activity | 2 | 5.6 | 5.6 | 5.6 |
| | | 1 activity | 7 | 19.4 | 19.4 | 25.0 |
| | | 2 activities | 13 | 36.1 | 36.1 | 61.1 |
| | | 3 activities | 8 | 22.2 | 22.2 | 83.3 |
| | | 4 activities | 4 | 11.1 | 11.1 | 94.4 |
| | | 5 or more activities | 2 | 5.6 | 5.6 | 100.0 |
| | | Total | 36 | 100.0 | 100.0 | |
| Treatment | Valid | 1 activity | 4 | 9.8 | 10.3 | 10.3 |
| | | 2 activities | 9 | 22.0 | 23.1 | 33.3 |
| | | 3 activities | 7 | 17.1 | 17.9 | 51.3 |
| | | 4 activities | 9 | 22.0 | 23.1 | 74.4 |
| | | 5 or more activities | 10 | 24.4 | 25.6 | 100.0 |
| | | Total | 39 | 95.1 | 100.0 | |
| | | Missing System | 2 | 4.9 | | |
| Total | 41 | 100.0 | | | | |

EducationParent1

| Control vs Treatment | | | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------------|-------|------------------------|-----------|---------|---------------|--------------------|
| Control | Valid | Less than high school | 3 | 8.3 | 8.3 | 8.3 |
| | | Highschool | 8 | 22.2 | 22.2 | 30.6 |
| | | 1 year postsecondary | 4 | 11.1 | 11.1 | 41.7 |
| | | 2 years postsecondary | 3 | 8.3 | 8.3 | 50.0 |
| | | 3+ years postsecondary | 18 | 50.0 | 50.0 | 100.0 |
| | | Total | 36 | 100.0 | 100.0 | |
| Treatment | Valid | Highschool | 7 | 17.1 | 17.9 | 17.9 |
| | | 1 year postsecondary | 5 | 12.2 | 12.8 | 30.8 |
| | | 2 years postsecondary | 7 | 17.1 | 17.9 | 48.7 |
| | | 3+ years postsecondary | 20 | 48.8 | 51.3 | 100.0 |
| | | Total | 39 | 95.1 | 100.0 | |
| | | Missing System | 2 | 4.9 | | |
| Total | 41 | 100.0 | | | | |

EducationParent2

| Control vs Treatment | | | Frequency | Percent | Valid Percent | Cumulative Percent |
|----------------------|---------|------------------------|-----------|---------|---------------|--------------------|
| Control | Valid | Highschool | 14 | 38.9 | 38.9 | 38.9 |
| | | 1 year postsecondary | 5 | 13.9 | 13.9 | 52.8 |
| | | 2 years postsecondary | 4 | 11.1 | 11.1 | 63.9 |
| | | 3+ years postsecondary | 13 | 36.1 | 36.1 | 100.0 |
| | | Total | 36 | 100.0 | 100.0 | |
| Treatment | Valid | Less than high school | 3 | 7.3 | 8.1 | 8.1 |
| | | Highschool | 4 | 9.8 | 10.8 | 18.9 |
| | | 1 year postsecondary | 6 | 14.6 | 16.2 | 35.1 |
| | | 2 years postsecondary | 7 | 17.1 | 18.9 | 54.1 |
| | | 3+ years postsecondary | 17 | 41.5 | 45.9 | 100.0 |
| | | Total | 37 | 90.2 | 100.0 | |
| | Missing | System | 4 | 9.8 | | |
| Total | | 41 | 100.0 | | | |

**Behavior Assessment System for Children- 2nd edition
Paired Samples Test**

| Control vs Treatment | | Paired Differences | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | t | df | Sig. (2-tailed) |
|----------------------|--------|---|-------|----------------|-----------------|---|-------|-------|----|-----------------|
| | | | | | | Upper | Lower | | | |
| | | | | | | | | | | |
| Control | Pair 1 | PreBTAdaptiveSkillsTScore - Post1BTAdaptiveSkillsTScore | -.903 | 4.346 | .781 | 2.497 | -.691 | 1.157 | 30 | .256 |
| | Pair 2 | PreBTBehavSymptIndexTScore - Post1BTBehavSymptIndexTScore | 2.258 | 3.941 | .708 | .813 | 3.704 | 3.190 | 30 | .003 |
| | Pair 3 | PreBTInternProbTScore - Post1BTInternProbTScore | 3.645 | 5.493 | .987 | 1.630 | 5.660 | 3.695 | 30 | .001 |
| | Pair 4 | PreBTExternalProbTScore - Post1BTExternalProbTScore | 2.129 | 3.931 | .706 | .687 | 3.571 | 3.016 | 30 | .005 |
| | Pair 5 | PreBPAdaptiveSkillsTScore - Post1BPAdaptiveSkillsTScore | 2.750 | 8.299 | 2.075 | 7.172 | 1.672 | 1.326 | 15 | .205 |
| | Pair 6 | PreBPBehavSymptIndexTScore - Post1BPBehavSymptIndexTScore | 2.438 | 5.046 | 1.262 | -.251 | 5.126 | 1.932 | 15 | .072 |
| | Pair 7 | PreBPInternProbTScore - Post1BPInternProbTScore | 1.688 | 6.488 | 1.622 | 1.770 | 5.145 | 1.040 | 15 | .315 |
| | Pair 8 | PreBPExternalizingProbTScore - Post1BPExternalizingProbTScore | 1.625 | 3.757 | .939 | -.377 | 3.627 | 1.730 | 15 | .104 |



| | | | | | | | | | | |
|-----------|---------|--|-------|-------|-------|-------|-------|-------|----|------|
| Treatment | Pair 9 | PreBSPersAdjusTScore - Post1BSPersAdjusTScore | .618 | 4.678 | .802 | 1.014 | 2.250 | .770 | 33 | .447 |
| | Pair 10 | PreBSEmoSympIndexTScore - Post1BSEmoSympIndexTScore | .647 | 4.867 | .835 | 1.051 | 2.345 | .775 | 33 | .444 |
| | Pair 11 | PreBSInattentionHyperTScore - Post1BSInattentionHyperTScore | 1.471 | 5.327 | .914 | 3.329 | .388 | 1.610 | 33 | .117 |
| | Pair 12 | PreBSInternProbTScore - Post1BSInternProbTScore | .765 | 5.831 | 1.000 | 1.270 | 2.799 | .765 | 33 | .450 |
| | Pair 13 | PreBSSchoolTScore - Post1BSSchoolTScore | 1.029 | 5.317 | .912 | -.826 | 2.885 | 1.129 | 33 | .267 |
| | Pair 1 | PreBTAdaptiveSkillsTScore - Post1BTAdaptiveSkillsTScore | 3.553 | 6.084 | .987 | 5.552 | 1.553 | 3.600 | 37 | .001 |
| | Pair 2 | PreBTBehavSympIndexTScore - Post1BTBehavSympIndexTScore | 1.895 | 4.260 | .691 | .494 | 3.295 | 2.742 | 37 | .009 |
| | Pair 3 | PreBTInternProbTScore - Post1BTInternProbTScore | 2.000 | 6.049 | .981 | .012 | 3.988 | 2.038 | 37 | .049 |
| | Pair 4 | PreBTExternalProbTScore - Post1BTExternalProbTScore | 1.605 | 5.097 | .827 | -.070 | 3.280 | 1.942 | 37 | .060 |
| | Pair 5 | PreBPAdaptiveSkillsTScore - Post1BPAdaptiveSkillsTScore | 2.625 | 5.428 | 1.108 | 4.917 | -.333 | 2.369 | 23 | .027 |
| | Pair 6 | PreBPBehavSympIndexTScore - Post1BPBehavSympIndexTScore | 1.625 | 4.781 | .976 | -.394 | 3.644 | 1.665 | 23 | .109 |
| | Pair 7 | PreBPInternProbTScore - Post1BPInternProbTScore | 2.083 | 5.815 | 1.187 | -.372 | 4.539 | 1.755 | 23 | .093 |
| | Pair 8 | PreBPExternalizingProbTScore - Post1BPExternalizingProbTScore | .750 | 4.089 | .835 | -.977 | 2.477 | .899 | 23 | .378 |
| | Pair 9 | PreBSPersAdjusTScore - Post1BSPersAdjusTScore | 5.175 | 9.481 | 1.499 | 8.207 | 2.143 | 3.452 | 39 | .001 |



| | | | | | | | | | |
|---------|--|-------|-------|-------|-------|-------|-------|----|------|
| Pair 10 | PreBSEmoSympIndexTScore - Post1BSEmoSympIndexTScore | 4.550 | 8.623 | 1.363 | 1.792 | 7.308 | 3.337 | 39 | .002 |
| Pair 11 | PreBSInattentionHyperTScore - Post1BSInattentionHyperTScore | 3.325 | 7.098 | 1.122 | 1.055 | 5.595 | 2.963 | 39 | .005 |
| Pair 12 | PreBSInternProbTScore - Post1BSInternProbTScore | 3.950 | 8.632 | 1.365 | 1.189 | 6.711 | 2.894 | 39 | .006 |
| Pair 13 | PreBSSchoolTScore - Post1BSSchoolTScore | 2.925 | 6.154 | .973 | .957 | 4.893 | 3.006 | 39 | .005 |

Problem Solving Inventory Paired Samples Test

| Control vs Treatment | | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|----------------------|--------|--|--------------------|----------------|-----------------|---|--------|-------|----|-----------------|
| | | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | | | Upper | Lower | | | |
| Control | Pair 1 | PreProblemSolveTotal - Post1ProblemSolveTotal | .257 | 11.766 | 1.989 | -3.785 | 4.299 | .129 | 34 | .898 |
| Treatment | Pair 1 | PreProblemSolveTotal - Post1ProblemSolveTotal | 15.976 | 17.829 | 2.784 | 10.348 | 21.603 | 5.737 | 40 | .000 |

Family Assessment Measure Paired Samples Test

| Control vs Treatment | | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|----------------------|--------|--|--------------------|----------------|-----------------|---|-------|-------|----|-----------------|
| | | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | | | Upper | Lower | | | |
| Control | Pair 1 | PreFAMIIITaskAccomplishment - Post1FAMIIITaskAccomplishment | -1.056 | 7.627 | 1.271 | -3.636 | 1.525 | -.830 | 35 | .412 |



| | | | | | | | | | | |
|-----------|------|--|------------|--------|-------|------------|-------|------------|----|------|
| | Pair | PreFAMIIIRolePerformance - 2 Post1FAMIIIRolePerformance | - 2.222 | 10.128 | 1.688 | - 5.649 | 1.205 | - 1.316 | 35 | .197 |
| | Pair | PreFAMIIICommunication - 3 Post1FAMIIICommunication | - 2.333 | 7.964 | 1.327 | - 5.028 | .361 | - 1.758 | 35 | .088 |
| | Pair | PreFAMIIIAffectiveExpression - 4 Post1FAMIIIAffectiveExpression | .444 | 7.299 | 1.217 | - 2.025 | 2.914 | .365 | 35 | .717 |
| | Pair | PreFAMIIIIInvolvement - 5 Post1FAMIIIIInvolvement | -.944 | 8.976 | 1.496 | - 3.981 | 2.093 | -.631 | 35 | .532 |
| | Pair | PreFAMIIIControl - 6 Post1FAMIIIControl | 2.278 | 11.376 | 1.896 | - 1.571 | 6.127 | 1.201 | 35 | .238 |
| | Pair | PreFAMIIIValuesNorms - 7 Post1FAMIIIValuesNorms | -.889 | 9.077 | 1.513 | - 3.960 | 2.182 | -.588 | 35 | .561 |
| Treatment | Pair | PreFAMIIITaskAccomplishment - 1 Post1FAMIIITaskAccomplishment | 5.744 | 9.505 | 1.522 | 2.662 | 8.825 | 3.773 | 38 | .001 |
| | Pair | PreFAMIIIRolePerformance - 2 Post1FAMIIIRolePerformance | 5.282 | 10.988 | 1.759 | 1.720 | 8.844 | 3.002 | 38 | .005 |
| | Pair | PreFAMIIICommunication - 3 Post1FAMIIICommunication | 2.923 | 7.662 | 1.227 | .439 | 5.407 | 2.383 | 38 | .022 |
| | Pair | PreFAMIIIAffectiveExpression - 4 Post1FAMIIIAffectiveExpression | 5.205 | 10.042 | 1.608 | 1.950 | 8.461 | 3.237 | 38 | .003 |
| | Pair | PreFAMIIIIInvolvement - 5 Post1FAMIIIIInvolvement | 5.385 | 12.322 | 1.973 | 1.390 | 9.379 | 2.729 | 38 | .010 |
| | Pair | PreFAMIIIControl - 6 Post1FAMIIIControl | 3.333 | 11.737 | 1.879 | -.471 | 7.138 | 1.774 | 38 | .084 |
| | Pair | PreFAMIIIValuesNorms - 7 Post1FAMIIIValuesNorms | 4.718 | 8.341 | 1.336 | 2.014 | 7.422 | 3.532 | 38 | .001 |



Resiliency Scales for Adolescents Paired Samples Test

| Control vs Treatment | | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|----------------------|--------|---|--------------------|----------------|-----------------|---|-------|-------|----|-----------------|
| | | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | | | Upper | Lower | | | |
| Control | Pair 1 | PreRSERTotalITScore - Post1RSERTotalITScore | 2.629 | 9.296 | 1.571 | -.565 | 5.822 | 1.673 | 34 | .104 |
| | Pair 2 | PreRSRelatednessTotalITScore - Post1RSRelatednessTotalITScore | -.714 | 5.056 | .855 | 2.451 | 1.023 | -.836 | 34 | .409 |
| | Pair 3 | PreRSMasteryTotalITScore - Post1RSMasteryTotalITScore | 2.114 | 6.597 | 1.115 | 4.380 | .152 | 1.896 | 34 | .066 |
| Treatment | Pair 1 | PreRSERTotalITScore - Post1RSERTotalITScore | 4.073 | 13.348 | 2.085 | -.140 | 8.286 | 1.954 | 40 | .058 |
| | Pair 2 | PreRSRelatednessTotalITScore - Post1RSRelatednessTotalITScore | 2.902 | 11.291 | 1.763 | 6.466 | .661 | 1.646 | 40 | .108 |
| | Pair 3 | PreRSMasteryTotalITScore - Post1RSMasteryTotalITScore | 7.463 | 7.229 | 1.129 | 9.745 | 5.182 | 6.611 | 40 | .000 |

Bar-On Emotional Intelligence Quotient Paired Samples Test

| Control vs Treatment | | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|----------------------|--------|-------------------------------------|--------------------|----------------|-----------------|---|--------|-------|----|-----------------|
| | | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | | | Upper | Lower | | | |
| Control | Pair 1 | PreBarOnTotalEQ - Post1BarOnTotalEQ | -9.543 | 15.975 | 2.700 | 15.030 | -4.055 | 3.534 | 34 | .001 |
| Treatment | Pair 1 | PreBarOnTotalEQ - Post1BarOnTotalEQ | 14.878 | 14.782 | 2.309 | 19.544 | 10.212 | 6.445 | 40 | .000 |



**Multidimensional Self-Concept Scale
Paired Samples Test**

| | | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|----------------------|--------|-----------------------------------|--------------------|----------------|-----------------|---|-------|-------|----|-----------------|
| | | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | | | Upper | Lower | | | |
| Control vs Treatment | | | | | | | | | | |
| Control | Pair 1 | PreMSCSTotalSS - Post1MSCSTotalSS | -1.250 | 6.562 | 1.340 | -4.021 | 1.521 | -.933 | 23 | .360 |
| Treatment | Pair 1 | PreMSCSTotalSS - Post1MSCSTotalSS | 9.694 | 12.599 | 2.100 | 13.957 | 5.432 | 4.617 | 35 | .000 |