

Aggression Replacement Training® CIMH Community Development Teams

Aggregate Program Performance Dashboard Report Fall 2013 Data Submission

This aggregate program performance dashboard report describes youth for whom data were submitted in the fall of 2013 that participated in Aggression Replacement Training (ART®) groups through the CIMH-sponsored Community Development Teams. Each dashboard report reflects only those sites that submitted data at the specified data submission date, and reflects a historical record of their ART® implementation. It does not reflect all youth served through the Community Development Teams agencies, nor does it reflect youth served for whom data was submitted at an earlier, but not current, data collection period.

Six county agencies and four provider organizations submitted data to CIMH in the fall of 2013. This report presents data from:

- Butte County
- Ettie Lee Youth & Family Services
- Five Acres
- Imperial County
- Leroy Haynes Center
- Pacific Lodge Youth Services
- San Joaquin County
- Santa Cruz County
- Ventura County
- Washoe County

County agencies and provider organizations should be commended for their dedication to this aspect of the Community Development Teams, as we often find program performance and outcome evaluation activities, although critical to sustain model adherence, difficult to initiate and maintain over time.

This dashboard report reflects a total of **2,108** youth served through the ART® programs in these **six** county agencies and **four** provider organizations. Some youth were served more than once; therefore, these data do not represent unduplicated counts. Youth participated in ART® groups in a variety of settings, ranging from diversion/prevention in outpatient and education settings, to intervention in locked treatment facilities, Camps and Ranches. ART® settings have been condensed into four groups:

1. Juvenile Hall;
2. Other Secure Juvenile Justice Setting (i.e., Camp and Ranch);
3. Group Home/Residential Treatment Center; and,
4. Other Outpatient Setting (i.e., Court & Community School, Day Treatment, Outpatient, and Regular Education.)

| Table 1. ART[®] Client Demographics – Aggregate Data – Fall 2013 Submission | | | | | |
|---|-------------------------------------|--|---|---|---|
| | Aggregate Data (N=2,108) | Setting | | | |
| | | Juvenile Hall 36.1% (n=762) | Other Secure Juvenile Justice Setting 5.9% (n=124) | Group Home/ Residential Treatment Center 31.5% (n=663) | Other Outpatient Setting 26.5% (n=559) |
| Age | | | | | |
| Average Age in Years | 16.0 (n=1,837) | 17.0 (n=681) | 17.0 (n=124) | 14.4 (n=478) | 15.9 (n=554) |
| Gender | | | | | |
| Female | 12.4% (n=262) | 7.7% (n=59) | - | 17.0% (n=113) | 16.1% (n=90) |
| Male | 87.6% (n=1,846) | 92.3% (n=703) | 100% (n=124) | 83.0% (n=550) | 83.9% (n=469) |
| Ethnicity | | | | | |
| African- American | 19.3% (n=406) | 7.0% (n=53) | 28.2% (n=35) | 30.8% (n=204) | 20.4% (n=114) |
| Asian/Pacific Islander | 1.3% (n=27) | 2.0% (n=15) | 2.4% (n=3) | 0.3% (n=2) | 1.3% (n=7) |
| Caucasian | 18.5% (n=391) | 22.7% (n=173) | 9.7% (n=12) | 20.7% (n=137) | 12.3% (n=69) |
| Hispanic/Latino | 57.0% (n=1,202) | 65.9% (n=502) | 57.3% (n=71) | 44.9% (n=298) | 59.2% (n=331) |
| Native- American | 0.7% (n=14) | 1.2% (n=9) | - | 0.8% (n=5) | - |
| Other | 3.2% (n=67) | 1.3% (n=10) | 2.4% (n=3) | 2.4% (n=16) | 6.8% (n=38) |

Note: Percentages may not total 100 due to missing data.

| Table 2. ART[®] Service Delivery Information – Aggregate Data – Fall 2013 Submission | | | | | |
|--|---|---|---|---|---|
| | Aggregate Data (N=2,108) | Setting | | | |
| | | Juvenile Hall 36.1% (n=762) | Other Secure Juvenile Justice Setting 5.9% (n=124) | Group Home/ Residential Treatment Center 31.5% (n=663) | Other Outpatient Setting 26.5% (n=559) |
| ART[®] Service Delivery Information | | | | | |
| Range and Average # of Skill Streaming Groups | Range: 1 – 92 Avg: 8.9 (±6.7) (n=1,183) | Range: 1 – 12 Avg: 7.1 (±3.2) (n=454) | Range: 5 – 10 Avg: 9.8 (±0.7) (n=111) | Range: 1 – 92 Avg: 12.2 (±11.4) (n=312) | Range: 1 – 11 Avg: 7.9 (±2.8) (n=306) |
| Range and Average # of Anger Control Groups | Range: 1 – 25 Avg: 7.9 (±3.3) (n=1,125) | Range: 1 – 10 Avg: 6.7 (±2.9) (n=440) | Range: 5 – 10 Avg: 9.7 (±0.8) (n=122) | Range: 1 – 25 Avg: 9.4 (±4.2) (n=250) | Range: 1 – 10 Avg: 7.8 (±2.8) (n=313) |
| Range and Average # of Moral Reasoning Groups | Range: 1 – 25 Avg: 7.9 (±3.4) (n=911) | Range: 1 – 15 Avg: 7.2 (±3.6) (n=321) | Range: 4 – 10 Avg: 9.7 (±0.9) (n=121) | Range: 1 – 25 Avg: 7.9 (±4.5) (n=173) | Range: 1 – 10 Avg: 8.0 (±2.7) (n=296) |
| Youth Satisfaction with Group Participation* | | | | | |
| Skill Streaming | 3.64 (n=379) | 3.8 (n=79) | 3.4 (n=64) | 3.5 (n=54) | 3.7 (n=182) |
| Anger Control | 3.60 (n=325) | 4.2 (n=27) | 3.4 (n=64) | 3.6 (n=54) | 3.6 (n=180) |
| Moral Reasoning | 3.60 (n=383) | 3.8 (n=79) | 3.4 (n=73) | 3.5 (n=52) | 3.6 (n=179) |

*Satisfaction data reflect the average score across six satisfaction questions for each group component. Possible range of scores is 1 – 5.

Table 3. Average Percent Pre/Post Improvement Identified in ART[®] Component-Specific Outcome Measures – Aggregate ART[®] Data – Fall 2013 Submission

| | Aggregate Data (N=2,108) | Setting | | | |
|--|---------------------------------------|--------------------------------------|---|---|--|
| | | Juvenile Hall 36.1% (n=762) | Other Secure Juvenile Justice Setting 5.9% (n=124) | Group Home/ Residential Treatment Center 31.5% (n=663) | Other Outpatient Setting 26.5% (n=559) |
| Targeted Skill Streaming Group Outcomes – Skill Streaming Checklist (SS) –Subset of Skills Assessed | | | | | |
| SS – Youth | 10.9%* [pre=3.1] (n=133) | 10.2%* [pre=3.0] (n=98) | <i>n/a</i> | <i>n/a</i> | 12.7%* [pre=3.1] (n=35) |
| SS – Parent/ Caregiver | <i>n too small</i> | <i>n/a</i> | <i>n/a</i> | <i>n/a</i> | <i>n too small</i> |
| SS – Teacher/ Staff | 17.1%* [pre=2.9] (n=20) | <i>n too small</i> | <i>n/a</i> | <i>n/a</i> | <i>n too small</i> |
| Generalized Skill Streaming Group Outcomes – Skill Streaming Checklist (SS) - All or Most (≥30) Skills Assessed | | | | | |
| SS – Youth | 7.0%* [pre=3.4] (n=327) | 3.1% [pre=3.4] (n=93) | 8.9%* [pre=3.3] (n=95) | 10.9%* [pre=3.6] (n=54) | 6.6% [pre=3.2] (n=85) |
| SS – Parent/ Caregiver | <i>n/a</i> | <i>n/a</i> | <i>n/a</i> | <i>n/a</i> | <i>n/a</i> |
| SS – Teacher/ Staff | 16.0%* [pre=2.9] (n=127) | 11.5%* [pre=2.8] (n=75) | <i>n too small</i> | 26.2%* [pre=3.0] (n=37) | <i>n/a</i> |
| Anger Control Group Outcomes – Aggression Questionnaire (AQ) | | | | | |
| AQ - Youth | 4.9% [pre=91.5] (n=356) | 1.1% [pre=91.2] (n=176) | 4.7% [pre=94.3] (n=92) | <i>n too small</i> | 12.3%* [pre=89.6] (n=75) |
| Moral Reasoning Group Outcomes – How I Think Questionnaire (HIT) | | | | | |
| HIT – Youth | 5.7% [pre=3.3] (n=151) | <i>n too small</i> | 0.1% [pre=3.5] (n=60) | <i>n too small</i> | 8.6% [pre=3.2] (n=68) |

Note1: All pre/post outcome measures are described in Appendix A, and all scores are reported in terms of improvement (i.e., increased targeted use of pro-social skills, increased generalized use of pro-social skills, better management of aggression, and more mature and constructive thought processes). Pre-scores are presented [in brackets] to provide a baseline for the percent improvement observed.

Note2: Minimum n for aggregate pre/post analysis is 20 for any given outcome measure.

Note3: Follow-up analyses do not indicate statistically significant differences in any outcomes by gender or ethnicity.
n/a = not available

*A statistically significant improvement, $p \leq .01$.

Table 4. Average Percent Pre/Post Improvement Identified in ART® Program Outcome Measure – Aggregate ART® Data – Fall 2013 Submission

| | Aggregate Data (N=2,108) | Setting | | | |
|---|--|--|---|---|--|
| | | Juvenile Hall 36.1% (n=762) | Other Secure Juvenile Justice Setting 5.9% (n=124) | Group Home/ Residential Treatment Center 31.5% (n=663) | Other Outpatient Setting 26.5% (n=559) |
| ART® Program Outcomes – Youth Outcome Questionnaire – Youth Self-Report (YOQ-SR) | | | | | |
| YOQ-SR Total Score | 10.3%* [pre=57.6] (n=660) | 9.3% [pre=58.9] (n=249) | 16.1%* [pre=66.5] (n=101) | 18.8%* [pre=60.4] (n=122) | 1.0% [pre=49.5] (n=188) |
| Interpersonal Relations Scale Score | 9.8%* [pre=6.9] (n=660) | 6.4% [pre=6.7] (n=249) | 15.3% [pre=8.0] (n=101) | 22.9%* [pre=7.6] (n=122) | 0.0% [pre=6.0] (n=188) |
| Social Problems Scale Score | 12.7%* [pre=8.2] (n=660) | 9.6%* [pre=9.3] (n=249) | 14.3% [pre=9.6] (n=101) | 22.7%* [pre=7.8] (n=122) | 10.0% [pre=6.4] (n=188) |
| Behavioral Dysfunction Scale Score | 11.2%* [pre=12.0] (n=660) | 12.9%* [pre=12.3] (n=249) | 16.2%* [pre=13.3] (n=101) | 10.3% [pre=12.6] (n=122) | 5.7% [pre=10.5] (n=188) |
| Intrapersonal Distress Scale Score | 10.6%* [pre=16.4] (n=660) | 9.1% [pre=16.6] (n=249) | 18.1%* [pre=18.3] (n=101) | 20.1%* [pre=17.8] (n=122) | 0.2% [pre=14.2] (n=188) |
| Somatic Scale Score | 7.4% [pre=6.4] (n=660) | 5.8% [pre=6.0] (n=249) | 14.7% [pre=7.7] (n=101) | 18.5%* [pre=6.9] (n=122) | -4.1%[‡] [pre=5.8] (n=188) |
| Critical Items Scale Score | 8.3% [pre=7.8] (n=660) | 8.2% [pre=8.0] (n=249) | 18.3% [pre=9.5] (n=101) | 18.8%* [pre=7.8] (n=122) | -6.9%[‡] [pre=6.6] (n=188) |

Note1: All pre/post outcome measures are described in Appendix A, and all scores are reported in terms of improvement (i.e., improved mental health functioning). Pre-scores are presented [in brackets] to provide a baseline for the percent improvement observed.

Note2: Follow-up analyses do not indicate differences in any outcomes by gender or ethnicity.

*A statistically significant improvement, $p \leq .01$.

[‡]Unexpected findings are discussed in Appendix B.

Table 5. Average Percent Pre/Post Improvement Identified in ART[®] Program Outcome Measure – Aggregate ART[®] Data – Fall 2013 Submission

| | Aggregate Data (N=2,108) | Setting | | | |
|---|---|-----------------------------------|---|---|--|
| | | Juvenile Hall 36.1% (n=762) | Other Secure Juvenile Justice Setting 5.9% (n=124) | Group Home/ Residential Treatment Center 31.5% (n=663) | Other Outpatient Setting 26.5% (n=559) |
| ART[®] Program Outcomes – Youth Outcome Questionnaire – Parent/Caregiver Report (YOQ) | | | | | |
| YOQ Total Score | -11.0%[±] [pre=51.9] (n=80) | <i>n/a</i> | <i>n/a</i> | -14.0%[±] [pre=51.3] (n=73) | <i>n too small</i> |
| Interpersonal Relations Scale Score | -26.0%[±] [pre=6.6] (n=80) | <i>n/a</i> | <i>n/a</i> | -27.3%[±] [pre=6.5] (n=73) | <i>n too small</i> |
| Social Problems Scale Score | -23.5%[±] [pre=5.9] (n=80) | <i>n/a</i> | <i>n/a</i> | -29.9%[±] [pre=5.7] (n=73) | <i>n too small</i> |
| Behavioral Dysfunction Scale Score | -18.0%[±] [pre=12.0] (n=80) | <i>n/a</i> | <i>n/a</i> | -22.4%[±] [pre=11.8] (n=73) | <i>n too small</i> |
| Intrapersonal Distress Scale Score | -3.9%[±] [pre=16.1] (n=80) | <i>n/a</i> | <i>n/a</i> | -6.5%[±] [pre=16.1] (n=73) | <i>n too small</i> |
| Somatic Scale Score | -3.8%[±] [pre=3.4] (n=80) | <i>n/a</i> | <i>n/a</i> | -5.3%[±] [pre=3.4] (n=73) | <i>n too small</i> |
| Critical Items Scale Score | -11.7%[±] [pre=6.4] (n=80) | <i>n/a</i> | <i>n/a</i> | -13.7%[±] [pre=6.4] (n=73) | <i>n too small</i> |

Note1: All pre/post outcome measures are described in Appendix A, and all scores are reported in terms of improvement (i.e., improved mental health functioning). Pre-scores are presented [in brackets] to provide a baseline for the percent improvement observed.

Note2: Minimum n for aggregate pre/post analysis is 20 for any given outcome measure.

Note3: Follow-up analyses do not indicate differences in any outcomes by gender or ethnicity.

n/a = not available

*A statistically significant improvement, $p \leq .01$.

***Unexpected findings are discussed in Appendix B.**

Appendix A. Description of ART[®] Program Components and Pre/Post Outcome Measures

All outcomes reported in this dashboard reflect change in youth performance in each domain. Absolute change in scores are not reported; rather, outcomes reflect the percent improvement in youth pro-social skill use (targeted and generalized), management of aggression, mature and constructive thought processes, and aspects of general mental health functioning (when applicable). Average pre- scores are presented to provide a baseline for the observed change in each measure.

ART[®] Program Components

There are three components of ART[®]: Skill Streaming, Anger Control, and Moral Reasoning. The curriculum affords sites a great deal of flexibility, as model-adherence can be achieved and maintained within each of the three components individually. Community Development Team implementation varies across settings in which ART[®] is being delivered, with some sites running one type of group, some sites running two, and some sites running all three. Minimum model-adherence is achieved by presenting the curriculum, as designed, in group format, with two trained co-facilitators leading each group through component-specific tasks.

Skill Streaming groups teach the behavioral component of ART[®], in other words, what “to do” in challenging situations. Anger Control groups teach the emotional component of ART[®], modeling and practicing techniques that help youth with emotional regulation. Moral Reasoning is the “values” component, using vignettes to guide group discussions of morally challenging situations.

Each of the three types of ART[®] groups has a group-specific measure to assess the targets of the intervention. These measures are administered just prior to and immediately after participation in a course of sessions for particular component (pre and post). Thus, practitioners can assess the impact of group participation.

ART[®] Program Component-Specific Outcome Measures

The targets of the Skill Streaming groups are assessed using a *Skill Streaming Checklist*. Developed to assess the frequency with which youth use pro-social skills specifically targeted by the Skill Streaming curriculum, there are separate versions for youth, teachers/staff, and parents or caregivers. Responses on the *Skill Streaming Checklist* range from 1 (this skill is almost never used) to 5 (this skill is almost always used.) Scores represent the average item response and also range from 1 to 5. **Higher scores indicate better pro-social skills.**

There are two ways in which *Skill Streaming Checklists* are used: **Targeted and Generalized.** Targeted assessments focus on only those skills that are a part of a site’s Skill Streaming curriculum. Generalized assessments measure all or most of the 50 (Adolescent) or 60 (Elementary) potential skills (i.e., ≥ 30), although youth are only taught a smaller subset of skills.

The targets of the Anger Control groups are assessed using the *Aggression Questionnaire (AQ)*. This standardized, self-report measure assesses a youth’s aggressive responses, and his/her ability to channel those responses in a safe and constructive manner. Total Scores on the AQ range from 34 to 170, with scores of 110 or higher considered clinically significant. **Lower scores indicate better management of aggression.**

The targets of the Moral Reasoning groups are assessed using the *How I Think Questionnaire (HIT)*. This standardized, self-report measure assesses youth’s use of cognitive distortions, or thinking errors. Scores on the HIT represent the average item response and range from 1 to 6. **Lower scores indicate more mature and constructive thought processes.**

General ART® Program Outcomes

The overall impact of participation in ART® programs is assessed by some of the Community Development Team sites using the *Youth Outcome Questionnaire (YOQ and YOQ-SR)*. This standardized self-report and parent/caregiver-report measure assesses youth's global mental health functioning. Total Scores on the YOQ and YOQ-SR range from -16 to 240, with scores of 46 and 47 or higher considered clinically significant, respectively. **Lower scores indicate more normative, non-clinical, aspects of general mental health functioning.**

YOQ and YOQ-SR Scale Descriptions:

Interpersonal Relations (IR) assesses issues relevant to the youth's relationship with parents, other adults, and peers. Includes attitude toward others, communication and interaction with friends, cooperativeness, aggressiveness, arguing and defiance. High scores indicate significant interpersonal difficulty; while low scores reflect a cooperative, pleasant interpersonal demeanor. Scores on the YOQ and YOQ-SR IR scale range from -6 to 34, with scores of 4 and 3 or higher considered clinically significant, respectively.

Social Problems (SP) assesses problems that are socially related including aggression and delinquency. A feature of these items is that they are slow to change; whereas content tapped by many of the other scales often changes over a period of time as a result of treatment intervention. Scores on the YOQ and YOQ-SR SP scale range from -2 to 68, with scores of 3 or higher considered clinically significant.

Behavioral Dysfunction (BD) assesses inattention, hyperactivity, impulsivity, concentration, ability to organize tasks, and ability to handle frustration. Scores on the YOQ and YOQ-SR BD scale range from -4 to 40, with scores of 12 and 11 or higher considered clinically significant, respectively.

Intrapersonal Distress (ID) assesses the amount of emotional distress in the adolescent, including anxiety, depression, fearfulness, hopelessness, and self-harm. High scores indicate a considerable degree of intrapersonal distress in the adolescent. Scores on the YOQ and YOQ-SR ID scale range from -4 to 68, with scores of 16 and 17 or higher considered clinically significant, respectively.

Somatic (S) indicates change in somatic distress or physical complaints by the adolescent. High scores indicate the parent/caregiver is aware of a high number of somatic symptoms, while low scores indicate either absence or unawareness of them. Scores on the YOQ and YOQ-SR S scale range from 0 to 32, with scores of 5 and 6 or higher considered clinically significant, respectively.

Critical Items (CI) assesses areas such as paranoia, obsessive-compulsive behaviors, hallucination, delusions, suicide, mania, and eating disorders. Scores on the YOQ and YOQ-SR CI scale range from 0 to 36, with scores of 5 and 6 or higher considered clinically significant, respectively.

Given the nature of the ART® curriculum, improvement would be expected on the **Interpersonal Relations, Social Problems**, and perhaps secondarily, **Behavioral Dysfunction** scales. Improvement would not necessarily be expected on the Intrapersonal Distress, Somatic, and Critical Items scales. Elevations on these latter three scales may indicate co-occurring mental health needs and suggest the need for additional mental health assessment and intervention.

Appendix B. Unexpected Findings

Data reported here from the ART[®] component-specific measures suggests that CiMH-sponsored ART[®] programs are getting expected and favorable outcomes associated with Skill Streaming, Anger Control, and Moral Reasoning groups across all settings in which the intervention is being implemented. The findings suggest that youth are using pro-social skills at higher rates, are managing their aggressive tendencies better, and are employing more mature and constructive thought processes after group participation.

Aggregate data from the subset of sites using the YOQ-SR, the general measure of youth mental health functioning, to assess overall ART[®] program outcomes also suggests favorable outcomes according to youth self-reports. Positive outcomes are observed in almost all aspects of self-reported functioning across all setting types, most importantly, in the three areas that are expected to be positively impacted by participation in ART[®]: interpersonal relationships; social problems; and, behavioral dysfunction.

The remaining YOQ/YOQ-SR scales assess symptoms that are more reflective of mental health concerns, including intrapersonal distress, somatic symptoms, and issues that are indicative of psychiatric distress. These latter three areas are not expected to be positively impacted by ART[®]; however, sites benefit from these data as they indicate mental or emotional difficulties that warrant further assessment and/or treatment. Elevations on these scales indicate a need for a mental health assessment and possibly mental health interventions offered in addition to ART[®].

Although there are positive outcomes reported by youth ART[®] participants on the YOQ-SR, there are mixed findings according to the reports of staff working with these youth. Some Group Home/Residential Treatment Center sites use the YOQ parent/caregiver report as an additional assessment of overall ART[®] program outcomes. The measures are completed by residential and/or educational staff members who have opportunities to observe youth in their daily activities. Available staff-reported outcomes on the YOQ indicate a worsening of overall functioning, largely due to negative changes in interpersonal relationships, social problems and behavioral dysfunction, the three areas in which ART[®] is expected to have a positive impact. It is possible that aspects related to setting and/or population may impact observations by residential treatment staff. Youth may be perceiving improvements in various aspects of their mental health and functioning, which may not readily be evident to others.

While there are negative findings from the YOQ parent/caregiver report in Group Home/Residential Treatment Center settings, it is noteworthy that there were improvements in youth self-reports of their interpersonal relationships, their social problems related to aggression and delinquency, and their ability to manage frustration, all areas in which ART[®] group participation would be expected to have a positive impact. It is also noteworthy that positive outcomes were achieved in the three areas that are specifically targeted by ART[®]: use of pro-social skills, better management of aggression, and more mature and constructive thinking. Notably, improvements in the use of pro-social skills were evidenced not only by youth self-reports but also by the reports of staff members working with youth.