

IMPACT REPORT

FINDINGS FOR GIRLS ON THE RUN OF NORTHERN VIRGINIA



FALL 2014 PROGRAM EVALUATION

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ABSTRACT

This report presents findings of an evaluation of the *Girls on the Run* physical activity-based positive youth development (PA-PYD) program in Northern Virginia. The study was designed to determine the impact of program participation on girls' confidence, competence, connection, character, caring, contribution (5Cs + 1), and physical activity/inactivity.

Girls on the Run coaches administered a pre- and post-program survey to a sample of 379 girls who participated in Girls on the Run at 25 elementary schools in Northern Virginia during the fall 2014 season. The survey data was supplemented with participant demographic data collected from program registration forms. The race and ethnicity of the study participants mirrors the race/ethnicity of the Northern Virginia region.

The findings show that girls who began the program with lower than average pre-season scores on confidence in physical activity, self-worth, connection, character, caring, contribution and physical activity frequency -- as well as higher scores on sedentary behaviors -- showed statistically significant improvements from pre-season to post-season. This suggests that the girls who need the program the most, are also the ones likely to improve their life skills as a result of participating in Girls on the Run.

As a group, Girls on the Run participants in Northern Virginia scored relatively high in the 5Cs +1 life skills at pre-program assessment, and their scores remained high at post-program assessment. This finding is a positive sign that girls participating in Northern Virginia generally see themselves as healthy in physical, social, and psychological competencies.

Girls on the Run of Northern Virginia was one of 15 Girls on the Run councils taking part in the fall 2014 national program evaluation under the direction of Dr. Allison Riley and Dr. Maureen Weiss. A total of 2,949 girls were assessed nationwide. The data collected from the fall 2014 evaluation contributes to a national database used by Girls on the Run to continuously monitor and improve program quality.

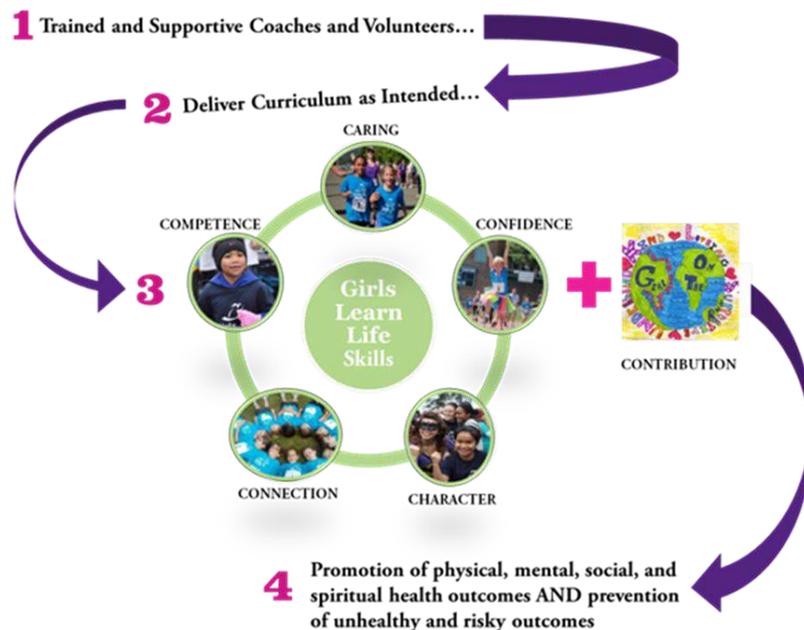


PROGRAM OVERVIEW

As a physical activity-based positive youth development (PA-PYD) program, Girls on the Run employs running and other physical activities as a medium for teaching essential life skills and core values for living a physically active and healthy lifestyle. The program contains all the social-contextual elements necessary of a positive youth development framework including, an intentional curriculum, instructor training to ensure fidelity, a caring climate and supportive relationships. Although varying conceptions of positive youth development exist, Girls on the Run’s 12 week curriculum carefully and thoughtfully includes Richard Lerner’s 5Cs + 1 – lessons targeting the promotion of competence, confidence, connection, character, caring and contribution to the greater good of society.¹ Specifically, lessons focus on promoting competencies and values related to self-awareness and self-care, selecting healthy social relationships, and empowering girls to have a voice in their personal and community well-being. At the end of each three-month session, the girls participate in a Girls on the Run 5k event. This celebratory, non-competitive event is the culminating experience of the curriculum. Completing the 5k provides girls with a tangible understanding of the confidence that comes through accomplishment as well as a framework for setting and achieving life goals. Crossing the finish line is a defining moment when the girls realize that even the seemingly impossible is possible.

Girls on the Run Process and Impact

This diagram provides a visual of the Girls on the Run process, as well as the direct and indirect outcomes of the program.



¹ Lerner, R.M., & Lerner, J.V. (2006). Toward a new vision and vocabulary about adolescence: Theoretical, empirical, and applied bases of a “Positive Youth Development” perspective. In L. Balter & C.S. Tamis-LeMonda (Eds.), *Child psychology: A handbook of contemporary issues* (pp. 445-469). NY: Psychology Press. 4

First, we have trained coaches who provide positive relationships and create a caring and supportive climate for the girls.

Our coaches also ensure that the curriculum – which is designed to intentionally teach life skills – is implemented as intended.

Over the course of the program the girls will develop life skills – which are known as the 5Cs + 1 (i.e., confidence, competence, caring, connection, and character + contribution). Life skills are defined as competencies learned in one domain or context (e.g., Girls on the Run) that are successfully transferred to other domains and contexts (e.g., dealing with a bully at school; remaining calm after your little sibling did something to annoy you).

Each day of the curriculum focuses on one or more of these life skills. Here we provide a little more information about the 5Cs + 1 and how they relate to the Girls on the Run curriculum.

- At the end of the program we want the girls to feel greater **confidence** in who they are. For instance, the girls gain confidence in their ability to stand up for themselves and others.
- The girls also develop moral **character** as they gain awareness of their ability to intentionally choose actions that demonstrate respect and responsibility towards themselves and others.
- Several lessons teach the girls to respond to others and themselves with **care and compassion**. For example, the girls discuss friendly behaviors that show caring, and learn strategies to stop gossip.
- The girls have the opportunity to create positive **connections** with peers and adults through lessons targeting cooperative skills and friendship qualities.
- Throughout the program the girls develop and improve physical, social, and emotional **competence** – for instance the girls are training over time for the 5k run.
- When the girls learn these life skills – they can ultimately **contribute** to community and society – which they demonstrate within the Girls on the Run program through the design and implementation of a Community Impact Project.

The 5Cs + 1 then contribute to healthy development through promotion of holistic health outcomes and prevention of unhealthy and risky outcomes. For instance, some indirect outcomes of the program may include promoting a physically active lifestyle and reducing risky behaviors such as obesity, pregnancy, substance abuse, and eating disorders.

EVALUATION FALL 2014

In fall 2014 we conducted an evaluation of the Girls on the Run program to determine the impact of program participation on the 5Cs + 1 and physical activity/inactivity. Coaches administered a survey consisting of 32 items reflecting the 5Cs + 1 and physical activity/inactivity prior to the first lesson (pre-assessment) and after the 5k (post-assessment). Demographic information was collected from participant registration forms. A total of 238 teams and 2,949 girls from 15 councils submitted valid surveys for data analysis.

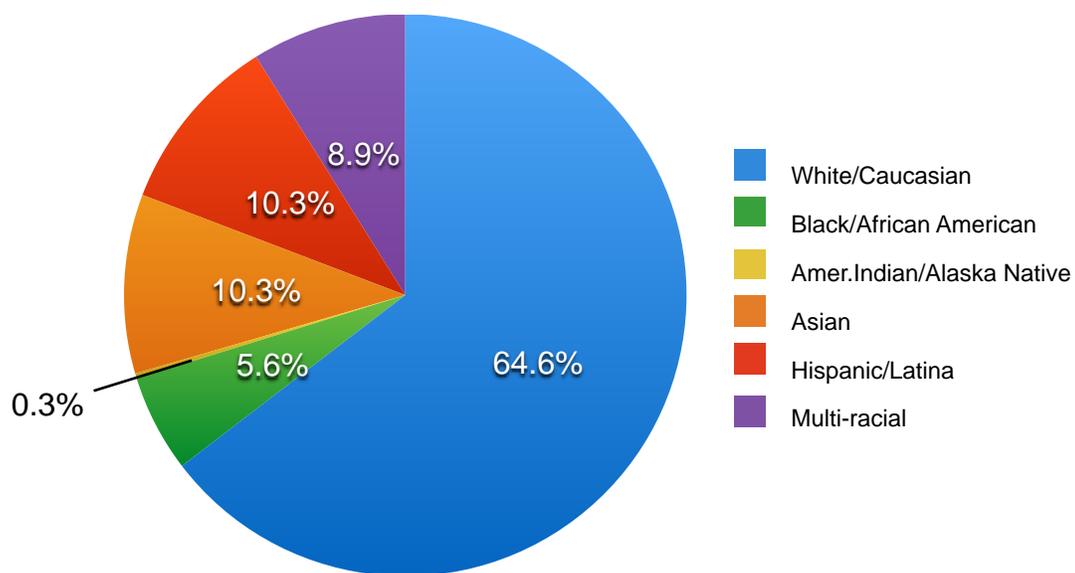
COUNCIL-SPECIFIC FINDINGS: GIRLS ON THE RUN OF NORTHERN VIRGINIA

We describe specific findings for Girls on the Run of Northern Virginia. Information includes sample characteristics, findings with respect to the 5Cs + 1 and physical activity/inactivity, comparison between scores before taking part in Girls on the Run to scores after the program, as well as % of girls who improved in the outcome areas.

Participants

A total of 379 girls participated in the study. Girls ranged from 7 to 12 years old, with an average age of 9.60 years. Many (56.1%) reported this was their first season in Girls on the Run, 13.6% had participated in one season, and 30.3% in two or more seasons. Girls were in the 3rd (28.6%), 4th (32.7%), 5th (32.4%), and 6th (6.4%) grades. The majority of girls were White/Caucasian (64.6%), 5.6% Black/African American, 0.3% American Indian/Alaska Native, 10.3% Asian, 10.3% Hispanic/Latina, and 8.9% Multi-racial (see Chart 1). Although we received surveys from 379 girls, usable data for the 5Cs + 1 were obtained from 262 - 281 girls due to skipped items, incorrect markings, or missing pre/post data. Of the 25 sites that participated in the study, 23 sent in complete pre and post data. Results are based on the maximum number of girls who completed each measure (between 262 and 281 girls).

Chart 1. Race/ethnicity of study participants.



Measures

Consistent with the positive youth development framework, we assessed constructs reflecting the 5Cs + 1 — confidence, competence, connection, character, caring, and contribution and physical activity/inactivity. We selected valid and developmentally appropriate measures for 8-12 year-old participants of Girls on the Run, which have been used in previous studies examining youth development through sport participation. We also gathered several demographic items, such as age, race/ethnicity, and number of past seasons in Girls on the Run from participant registration forms. We were especially mindful of a reasonable number of items and measures given time constraints by coaches prior to the first lesson.

We assessed confidence, connection, and character using the Self-Perception Profile for Children (Harter, 1985). The average of 5 items comprised scores for confidence in physical activity, self-worth (general confidence), connection, and character (completed by girls). Scores range from 1 (low) to 6 (high) for these subscales. We assessed caring using the Empathy Scale (Eisenberg et al., 1996) and contribution with the LiFE Sports Community scale (Anderson-Butcher et al., 2011), again using the average of multiple items to compute an overall score. Scores range from 1 (not at all true) to 5 (really true) for these subscales. The scales used to measure confidence in physical activity (alpha = .74, .80), self-worth (alpha = .70, .77), connection (alpha = .67, .71), character (alpha = .71, .77), caring (alpha = .84, .87), and contribution (alpha = .86, .88) all showed acceptable reliability. Sample items for each of these scales can be seen in Table 1.

5Cs + 1	Sample Items
Confidence in Physical Activity	“Some kids do very well at all kinds of physical activities” BUT “Other kids don’t feel they are very good when it comes to physical activities”
Self-Worth	“Some kids are usually happy with themselves as a person” BUT “Other kids are not usually happy with themselves”
Connection	“Some kids get along with others their age” BUT “Other kids do not get along so well with others their age”
Character	“Some kids usually do the right thing” BUT “Other kids often don’t do what they know is right”
Caring	“I get upset when I see a girl getting her feelings hurt”
Contribution	“I participate in activities that help my community”

Table 1. Measures and sample items.

We assessed competence by recording whether girls completed the program capstone of the 5k run. Additionally we used items from the Youth Risk Behavior Surveillance Survey (YRBS) to measure physical activity frequency and sedentary behaviors. More specifically, girls indicated how many days they did physical activities for at least 60 minutes per day during the last full week and the past weekend. They also reported how many hours they watch TV and how many hours they do other sedentary activities such as play video games, computer games or spend time on an iPad or smartphone on a normal school day. Findings are outlined below.

COMPARISON BETWEEN PRE-SEASON AND POST-SEASON SCORES

First we compared girls' scores before participating in Girls on the Run with their scores after participating in Girls on the Run. We explored this in two ways. First we looked at all the girls in the sample. Then we looked at girls who began the season with lower scores on each of the constructs (below the mean for the entire sample) because we wanted to know whether those girls most in need of a PA-PYD program benefited from participation. We ran t-tests to tell us if the changes from pre-season to post-season were statistically significant. We also calculated the effect size, which is a measure of meaningful or practical significance.

Confidence in Physical Activity

Girls' pre-season scores were relatively high at 4.30 (3.5 is the midpoint of the scale) and remained high following the program (4.41). This means that participants were responding between "sort of true" and "pretty true" about their confidence in doing sports and physical activities.

Next we specifically looked at girls who began the season with lower confidence in physical activity scores. Results showed a statistically significant increase in confidence from pre-season to post-season. Not only was the increase statistically significant, it was also practically significant. Table 2 provides the pre-season and post-season means and effect sizes. Figure 1 shows the pre- and post-season scores visually.

Self-Worth

Girls' self-worth was assessed with items reflecting how pleased they are with themselves, like the kind of person they are, and like the way they are living their lives. Girls rated items highly at pre-season – 5.09 (3.5 is the midpoint of the scale)—and post-season (5.09), meaning that they responded "pretty true" to describe their self-worth. Girls who began the season with lower self-worth scores (below the mean for the entire sample) had statistically and practically significant improvements in self-worth over the course of the program. Table 2 provides the pre-season and post-season means and effect sizes. Figure 1 shows the pre- and post-season scores visually.

Connection

Girls answered questions about how well they thought they were liked and accepted by their peers. Scores were high at pre-season (4.70 on a 6-point scale) and remained high at the end of the program (4.76). These scores mean that girls responded between "sort of true" and "pretty true" for feelings of connection among peers. Girls who began the season with connection scores lower than the sample mean showed statistically significant increases over the course of the season. The increases also show practical significance, meaning that their post-season scores were meaningfully different than those at pre-season. Table 2 provides the pre-season and post-season means and effect sizes (practical significance). Figure 1 shows the pre- and post-season scores visually.

Character

Girls responded to items reflecting the extent to which they believe they do the right thing, act the way they're supposed to, and avoid getting in trouble. Scores were high at pre-season (5.03) and again following the end of the program (5.01). These scores mean that girls responded "pretty true" for perceptions of character. While scores remained stable for the full sample of girls, statistically and practically significant increases were found for girls who began the season with character scores lower than the sample mean. Table 2 provides the pre-season and post-season means and effect sizes. Figure 1 shows the pre- and post-season scores visually.

Figure 1. Pre-season to post-season comparison for girls with lower pre-season scores.

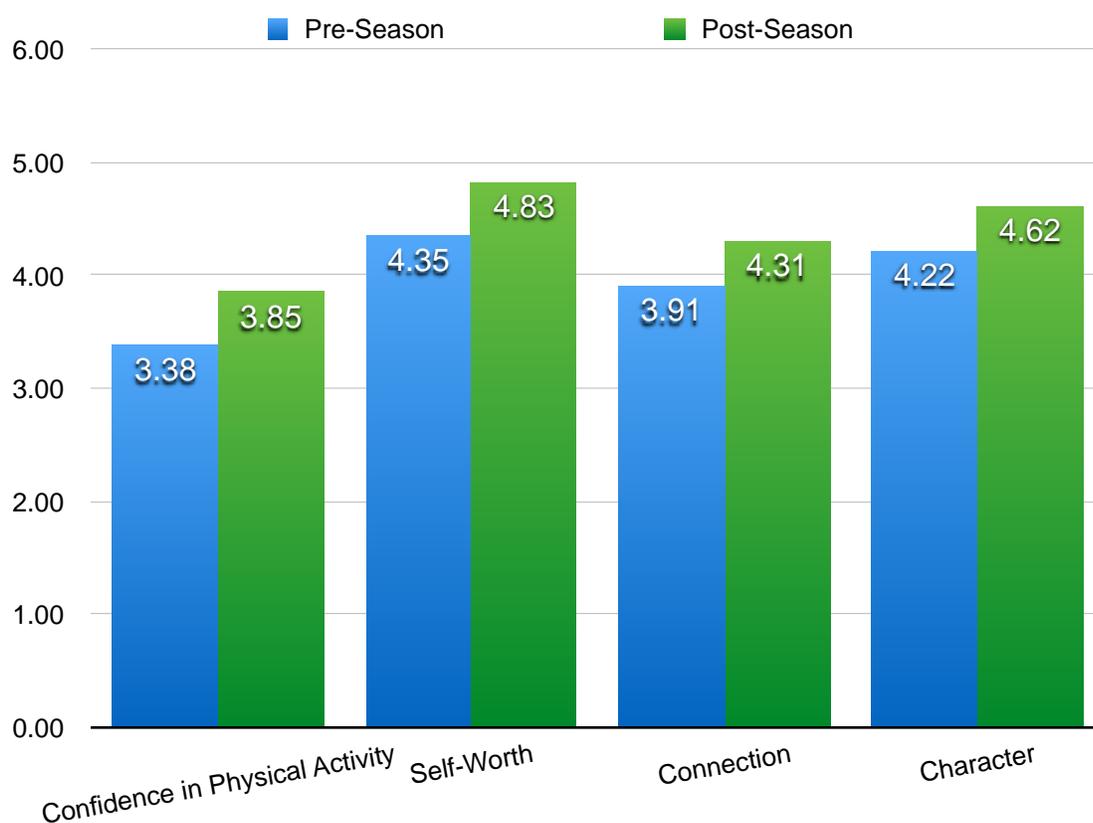


Table 2. Pre-season to post-season comparison for girls with lower pre-season scores.

	n ²	Pre-Season Mean	Post-Season Mean	Effect Size
Confidence in Physical Activity	120	3.38	3.85	0.67
Self-Worth	113	4.35	4.83	0.67
Connection	118	3.91	4.31	0.58
Character	102	4.22	4.62	0.83
Caring	106	3.56	4.1	0.7
Contribution	139	2.5	3.06	0.98
PA Weekday	117	2.27	3.01	0.8
PA Weekend	144	0.87	1.19	0.96
Total PA	99	3.15	4.17	0.97

² Note: Sample sizes varied due to the number of girls who scored below the sample mean on that variable.

³ Note: Effect size indicates practical or meaningful significance beyond statistical significance ($p < .05$). Effect size is calculated as Mean postseason minus Mean preseason divided by the preseason standard deviation. Thus an effect size of 1.0, for example, means that on average girls scored 1 standard deviation higher at post- than at pre-season. Values of .20-.49 indicate a small effect size, .50-.79 a medium effect size, and $> .79$ a large effect size.

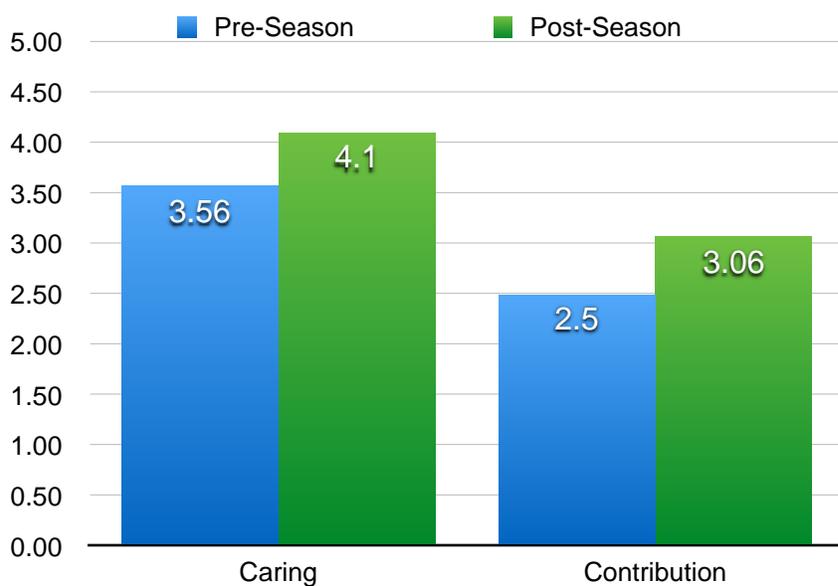
Caring

Caring was assessed with items reflecting empathy towards others. Girls rated items very highly at pre-season—4.36 (3.0 is the midpoint of the scale)—and post-season (4.45), meaning that they responded between “pretty true” and “really true” to describe their caring behaviors. Girls who began the season with lower caring scores (below the mean for the entire sample) had statistically and practically significant improvements in caring over the course of the program. Table 2 provides the pre-season and post-season means and effect sizes. Figure 2 shows the pre- and post-season scores visually.

Contribution

Girls responded to four items concerning the extent to which they participate in activities that help their community. Girls were positive at pre-assessment (3.31) and remained high at post-assessment (3.42), suggesting responses between “somewhat true” and “pretty true” for items related to community impact. Girls who began the season with contribution scores lower than the sample mean showed statistically significant increases over the course of the season. The increase also showed practical significance, meaning that their post-season scores were meaningfully different than those at pre-season. Table 2 provides the pre-season and post-season means and effect sizes. Figure 2 shows the pre- and post-season scores visually.

Figure 2. Pre-season to post-season comparison for girls with lower pre-season scores.

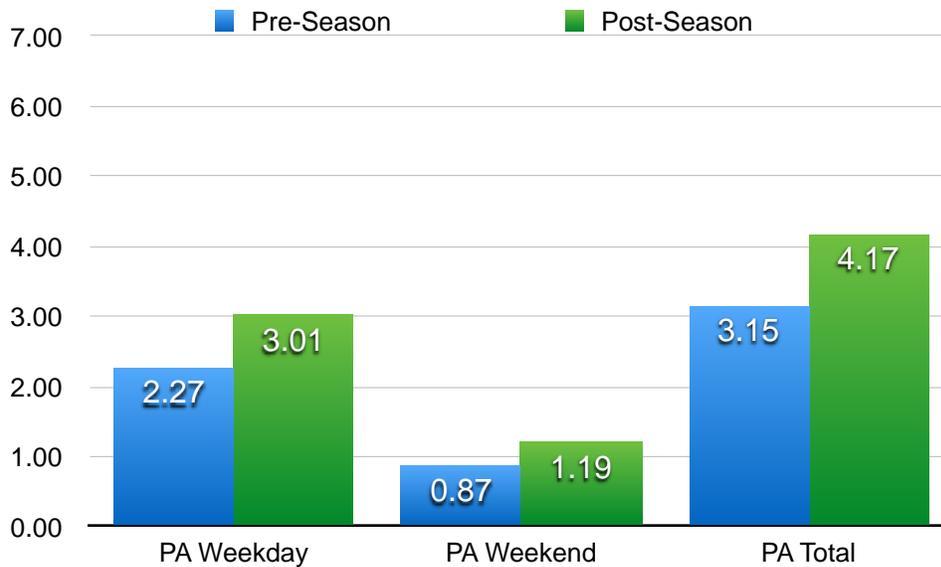


Physical Activity and Sedentary Behavior

Physical activity/inactivity was assessed with items tapping physical activity frequency during the week and on the weekend, as well as TV time and time engaged in other sedentary activities such as on social media or playing video games on a normal school day. Physical activity frequency during the last full school week remained stable from pre-survey (3.56 days/week) to post-survey (3.57 days/week). Physical activity frequency on the weekend also remained stable (1.39 days at pre-survey to 1.39 days at post-survey). We also calculated the total number of days by combining the weekday and weekend scores. At the pre-survey girls indicated that they did physical activity 4.94 days during the last full week, and that number remained high at post-survey (4.96 days).

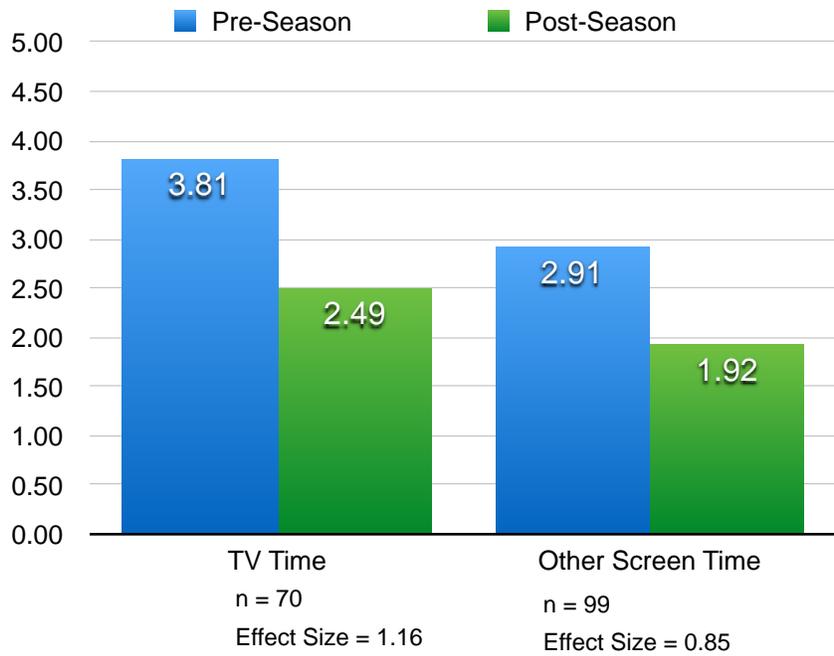
Statistically significant increases were found for girls who began the season with scores lower than the sample mean. More specifically, scores increased from pre- to post-season for weekday physical activity, weekend physical activity and total physical activity. The increases were also practically significant, meaning that their post-season scores were meaningfully different than those at pre-season. Table 2 provides the pre-season and post-season means and effect sizes. Figure 3 shows the pre- and post-season scores visually.

Figure 3. Pre-season to post-season comparison for girls with lower pre-season scores.



Girls reported how many hours they engage in sedentary activities on a normal school day. Time watching TV remained stable from pre-season (1.71) to post-season (1.56). Girls also reported the number of hours spent playing video games, computer games or engaging in other related sedentary behaviors. Other screen time went from 1.47 at pre-season to 1.32 at post-season. Girls who began the season with higher pre-season TV time scores showed significant improvements. Other screen time scores also decreased significantly. Figure 4 shows the pre- and post-season scores and effect sizes. The coding system for these items is included in the note below Figure 4.

Figure 4. Pre-season to post-season comparison for girls with higher pre-season scores.



Coding was as follows: 0 = I do not do this activity on a normal school day, 1 = Less than 1 hour per day; 2 = 1 hour per day, 3 = 2 hours per day, 4 = 3 hours per day, 5 = 4 hours per day.

Percentage Improving from Pre-Season to Post-Season

In addition to looking at mean change in scores as shown in the previous section, we also looked at the percentage of girls who improved from pre- to post-season. We calculated these percentages for all girls, new girls (those attending Girls on the Run for the very first time), and returning girls (those who attended a previous season of Girls on the Run). Table 3 shows the percentages for these categories. In the far right column, we also calculated the percentage for girls who began the season with scores lower than the sample mean.

Table 3. Percentage of girls improving from pre-season to post-season.

	Total Sample			Girls with pre-season scores lower than the sample
	All Girls (n=281)	New (n=157)	Returning (n=118)	All Girls
Confidence in Physical Activity	51.9%	49.7%	55.2%	65.8% (n=120)
Self-Worth	43.6%	41.4%	45.7%	65.5% (n=113)
Connection	54.0%	56.3%	51.7%	68.6% (n=118)
Character	46.0%	47.9%	44.0%	66.7% (n=102)
Caring	38.8%	40.8%	35.6%	65.1% (n=106)
Contribution	45.6%	45.2%	46.6%	62.6% (n=139)
PA Weekday	31.6%	29.4%	35.7%	53.0% (n=117)
PA Weekend	20.4%	20.3%	21.4%	38.2% (n=144)
Total PA	35.7%	36.2%	36.4%	60.6% (n=99)
TV Time**	30.0%	31.0%	26.1%	65.7% (n=70)
Other Screen Time**	31.6%	31.6%	31.9%	62.6% (n=99)

** Scores decreased from pre- to post-season

COMPETENCE

Competence is one of the 5Cs and refers to competence in physical, social, and psychological areas. Because we have measures for social (connection, caring) and psychological (confidence, character) competencies, we focused here on physical competence—specifically the culminating physical activity experience of being able to complete a 5k run at the end of the season. We requested that coaches submit documentation of how many girls completed the 5k at the end of their season. We received this information for 23 out of 25 sites, which documented that 84% (310 of 369 total) of girls completed the 5k event.

SUMMARY OF FINDINGS: GIRLS ON THE RUN OF NORTHERN VIRGINIA

- Collectively, findings show that participants in Girls on the Run of Northern Virginia scored relatively high at pre-program assessment on confidence in physical activity, self-worth, connection, character, caring, contribution, and physical activity frequency and their scores remained high at post-program assessment. Stability in scores from pre- to post-program assessment is a positive sign—girls see themselves as healthy in physical, social, and psychological competencies before and after the program.
- Girls who began with lower pre-season scores on confidence in physical activity, self-worth, connection, character, caring, contribution and physical activity frequency, and higher scores on sedentary behaviors showed statistically significant improvements from pre-season to post-season. This suggests that girls who need the program the most are likely to improve.
- Many girls showed improvements from pre- to post-season on life skills and physical activity/inactivity. This was especially true for girls who began with lower pre-season scores.

CONCLUSION

For the overall sample in your council, confidence in physical activity, self-worth, connection, caring, character, contribution and physical activity behavior did not meaningfully improve from pre- to post-season. Below are some possible reasons for these non-changes, and Girls on the Run International is already addressing these issues as a result of this evaluation.

- Because coaches administered pre- and post-surveys, girls' ratings may have been elevated due to a social desirability effect. We are encouraging Councils to use "arms-length" adults to administer surveys going forward, such as volunteers, board members, and staff.
- Variations in pre- to post-survey scores may be due to variability in program delivery among program sites. Such variability in program delivery became evident during data analysis. Some sites within councils showed increases over time, others showed no change, and still others showed decreases over time. Girls on the Run International has taken steps to provide additional resources for coach training to ensure that the intentional curriculum is delivered with integrity.
- The measures were carefully selected and valid and appropriate for 8 to 11 year-olds. However, it could be that alternative or additional measures might better capture impact of curricular content.

An encouraging note, however, is that girls who began with lower pre-season scores on the 5Cs + 1 and physical activity behavior showed statistical and meaningful differences from pre- to post-season. In other words, the girls who are perhaps in most need of a positive program experience to improve psychosocial and physical qualities benefited the most from their participation in Girls on the Run. These results show that evaluation data should be analyzed with consideration of the total sample as well as sub-samples, such as those scoring lower at pre-season, new participants, and returning participants.

We hope this report and the information herein provide valuable insight for your council in sharing with coaches, parents, and funders. If you have any questions, please don't hesitate to contact Allison Riley. Thank you for participating in our fall evaluation project!