

THE DOC WAYNE ATHLETIC LEAGUE:
AN ADJUNCTIVE THERAPEUTIC INTERVENTION FOR RESIDENTIAL SCHOOL GIRLS

END-OF-YEAR EVALUATION

2009

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THE PROGRAM

The Doc Wayne Athletic League was founded with a simple goal in mind: to provide children in residential school settings with an opportunity to play sports. Children in residential schools, often intensely traumatized, frequently evidence severe behavior problems, which prevent them from engaging in “normal” teenage activity. Though the goal was simply to provide an opportunity for exercise and socialization, it was quickly observed that children in the league achieved far greater benefit than simply burning off extra energy and learning to shoot hoops. Staff noticed that kids who participated in the League had improvements in grades, reductions in behavioral problems and improved attitude and mental health. Participants were developing leadership skills and self-esteem, and demonstrating increased ability to resolve conflicts and regulate emotions. These findings were supported by preliminary data analyses. In short, the League was facilitating the overall treatment goals of children in the League. Given the apparently high impact of the program, the League sought out to transform itself into a bona-fide adjunctive treatment through the establishment of a curriculum, which would standardize coach training and goals. Thus was born the “Do the Good” DTG program. DTG’s pilot focused on training coaches to facilitate skills through four sports-themed therapeutic goals: “play to the whistle” (e.g., perseverance), “show up” (e.g., commit to one’s best possible performance), “build your team” (e.g., leadership skills and responsibility-taking), and “fill the tank” (e.g., provide support for one another). These skills are consistent with gold-standard therapeutic practices for traumatized children, which include building secure attachment relationships with adults and peers, developing competency at developmentally-appropriate tasks, and self-regulating in the service of achieving goals. The vehicle for delivering the curriculum was monthly sports clinics in which participants practiced both basketball and DTG skills.

The curriculum was delivered across a five-month season primarily by volunteer coaches who were also school staff. Coaches participated in two trainings and ongoing consultations and were taught to provide specific praise in response to accomplishments, to use “circle-ups” as teaching and team-building moments, and to provide one-on-one behavioral coaching and teaching to each participant. These coaching behaviors are consistent with effective behaviors in both Positive Youth Development programs and trauma-informed therapy.

The DWAL’s DTG program was evaluated through observation of coaches’ trainings and games, focus groups, and student mental health and behavioral data. The evaluation sought to answer the following target questions:

1. What are the coaching techniques and behaviors of DWAL coaching staff, and are these behaviors consistent with the goals of the curriculum? Do these behaviors increase with training?
2. What are the on-the-court behaviors of players, and are these behaviors consistent with the goals of the curriculum? Do these behaviors increase with participation in the League?
3. Are players showing improvements in target outcomes such as grades, behavior and mental health?
4. Are players in the League improving more than their non-participating peers in the above outcomes?

5. Do coaches' DTG curriculum behaviors relate to players' on-the-court DTG behaviors?
6. Do coaches' DTG behaviors relate to players' outcomes?
7. Do players' DTG behaviors relate to their own outcomes?

Answers to these questions, and data supporting these findings, are reported in the document, which follows.

METHOD

Overview.

To address the evaluation questions, both quantitative and qualitative research methodologies were used. Quantitative data was collected on the mental and behavioral health of students in DWAL as well as non-DWAL comparison students at their residential schools. These data were collected to investigate change in DWAL students from before to after the season as well as to investigate whether changes were unique to the DWAL, rather than simply due to residential school treatment. Furthermore, observation of both students and coaches at each basketball game was used to determine whether coaches were implementing the program, and whether implementation of the curriculum led to students' DTG-related behavior. Finally, students and coaches participated in focus groups, in which they provided feedback on the DTG program and other aspects of DWAL.

Quantitative Data.

Behavioral Data.

Behavioral data were culled from chart review. The data utilized in the evaluation included grades, need for physical restraints in programs, need for use of time-outs and isolation in programs, and other behavioral incidents (e.g., running away, swearing at staff, suicide attempts) in programs. Grades were quantified using grade point average for the quarter before the DWAL season began, for the quarter during the season, and during the last few weeks and immediately after the season's end. Physical restraints, isolations, and other behavioral incidents were calculated by tallying the occurrence of each event for the ten weeks prior to the start of the program ("pre-DWAL"), the first ten weeks of the program ("during DWAL"), and the last five weeks of the program and five weeks following the conclusion of the program ("post-DWAL"). The rationale for this time series was to allow for equal time periods of data collection, with the assumption that the majority of the gains associated with the program would be evident by the latter third of the program. Data were collected on all students enrolled in both JRI and DWAL.

Mental Health.

Mental health was determined using Achenbach's Child Behavior Checklist (CBCL), a standardized instrument filled out by caregivers, therapists or teachers. The *Child Behavior Checklist* (CBCL; Achenbach, 1991) is a widely used 118-item instrument that can be reliably separated into Internalizing (anxiety/depression, withdrawal, somatic complaints) and Externalizing (delinquency, aggression) subscales (Greenbaum & Dedrick, 1998). Internal consistency has ranged from .89-.93 in prior research (Achenbach, 1991) and .91 for the current study. The CBCL has been found to have strong concurrent validity in clinical populations (Achenbach & Edelbrock, 1980). Scores of 64 or higher are commonly considered the cutoff for clinically significant problems on a given subscale. Data was collected pre-, during and post-DWAL. Data were collected on all students enrolled in both JRI and DWAL.

Physical Health.

Weight, pre-, during and post-DWAL was used as a proxy for physical health. Data were collected on all students enrolled in both JRI and DWAL.

Student DTG Behavior.

Student DTG behavior was collected via observation over a five-month period. Tallies were collected for each of the following target behaviors: conflicts (e.g., losing of one's temper, crying, arguments with referees or other students), conflict resolution (e.g., apologizing or accepting responsibility for behavior, "holding" one's temper when slighted), helping behaviors (clapping for injured players, checking in with injured players, offering comfort/encouragement to the other team), participation in circle-ups (i.e., during teaching or reflection moments, offering praise to peers, asking questions, providing suggestions to the team), communication with others on the court, and offering encouragement or praise to peers. Data were collected for all DWAL participants, regardless of JRI program membership.

Coach DTG Behavior.

Coach DTG behavior was collected via observation at games. Tallies were collected for each of the following target behaviors: using circle-ups as a vehicle for teaching, praise and reflection; one-on-one praise and feedback to students; use of specific praise when providing feedback (e.g., "the way you communicated with Vanessa during that play is a great example of how to build the team, and demonstrates your commitment to the group; I'm proud of you" versus a simple "good job"), and facilitation of a clear team identity (e.g., leading team chants, bringing banners for their team). Data were collected for all DWAL coaches.

Exclusion criteria.

Students' behavioral, mental health and physical health data were excluded if 1) the student was discharged prior to the season's 10th week, or 2) if the student entered their residential program after the season's fifth week.

Quantitative Data Analysis.

In order to determine whether students enrolled in DWAL showed improvements over time, paired-samples t-tests were used. In order to determine whether students in the DWAL program improved more than comparison students, t-tests were used to determine baseline differences, as healthier students may have enrolled in DWAL. Then, pre- and post-DWAL outcomes were compared with t-tests. In order to examine student and coaching DTG over time, target behaviors from the first three and last three games were used, and t-tests were used to check for differences. In order to examine whether use of coach DTG behaviors were related to student outcomes, sum scores of DTG coach behaviors were correlated with behavioral, mental health, physical health, and student DTG scores.

Qualitative Data Collection.

Game and Clinic Observation.

Observation of games was used to supplement quantitative data on student and coach DTG behavior. Notes were made by the evaluator on examples of target behaviors, as well as on unexpected positive or negative behaviors.

Focus Groups.

A focus group was conducted with coaches in order to provide feedback on the training and support they received, and on the implementability of the program. The focus group was conducted by DTG curriculum development staff and documented by the program evaluator. Focus groups were conducted at the three JRI residential programs to get feedback on student perceptions. Focus groups were conducted by evaluation staff assistants and evaluation staff took notes.

RESULTS

Quantitative Data.

Sample Descriptives

On average, 62 players attended each game. Players ranged in age from 12-21 and were all female and of mixed racial and ethnic backgrounds. Each school brought 6-17 players each week; on average, each team brought 9 students/week. Eleven coaches participated in the League; 7 of these were male. 33 of these students were from JRI residential schools and analyzed for outcomes. An additional 26 students from JRI residential programs were analyzed over the same time period for comparison purposes.

Baseline Differences. There were no differences in baseline between DWAL participants and their non-participating counterparts with respect to weight, grades, restraints, isolations, internalizing problems, or externalizing problems. Therefore, differences in these domains

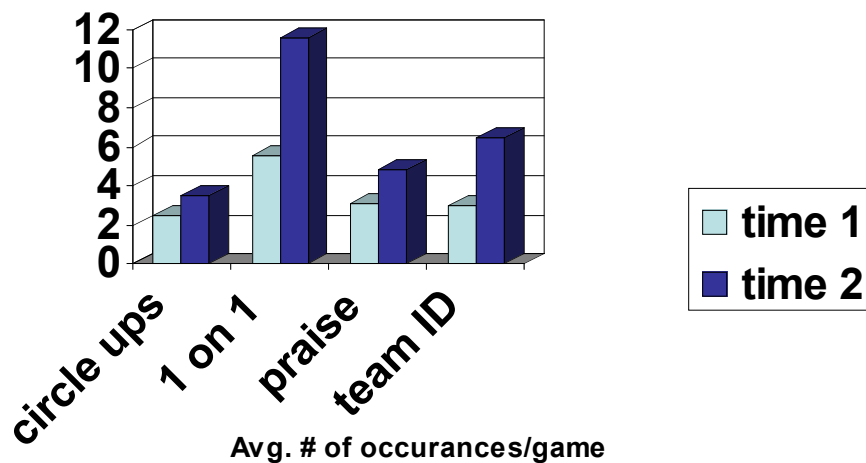
between players and their counterparts at post-League are not due to differences in baseline problem severity. DWAL participants had significantly more behavioral incidents in their program at baseline compared to non-participants ($t(53) = 2.08, p < .05$).

Target Evaluation Questions

1. What are the coaching techniques and behaviors of DWAL coaching staff, and are these behaviors consistent with the goals of the curriculum? Do these behaviors increase with training?

On average, each coach held 2 circle-ups per game in the first half of the season, and 3 per game in the second half. This increase represents a statistically significant increase. On average, each coach provided one on one feedback to players 5 times per game in the first half of the season, and 11 times per game in the second half. This increase represents a statistically significant change. On average, each coach provided specific praise 3 times per game in the first half of the season, and 4 times in the second half. This change represents a statistically significant increase. On average, each coach facilitated team identity building 2.5 times per game in the first half of the season, and 6.5 times in the second half. Again, this change represents a statistically significant increase. One on one feedback was the most frequently observed behavior at the end of the season. These behaviors are consistent with the goals of the DTG curriculum (see qualitative section for details.)

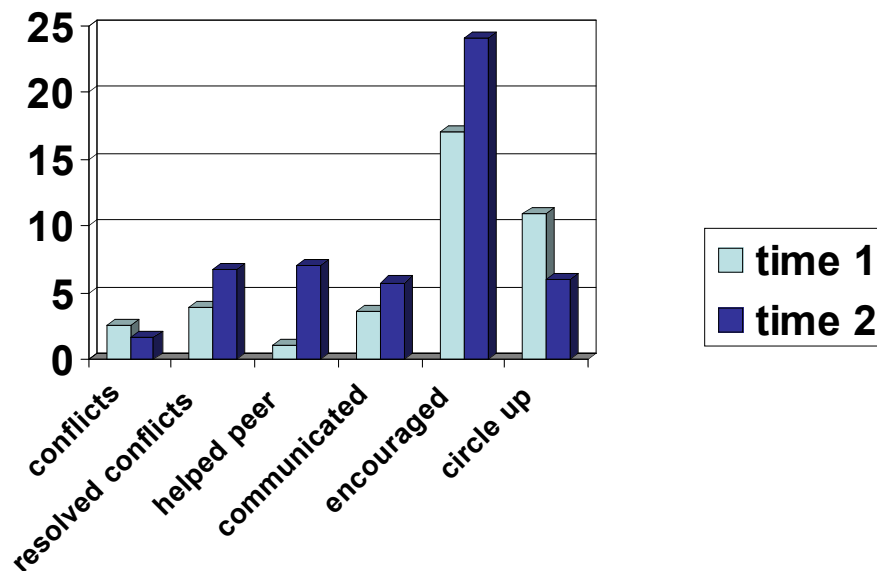
Coaches' DTG Behavior During Games



2. *What are the on-the-court behaviors of players, and are these behaviors consistent with the goals of the curriculum? Do these behaviors increase with participation in the League?*

At the start of the season, players had an average of 2.6 conflicts per game. At the end of the season, they had approximately 1.6; this decrease is statistically significant. At the start of the season, players engaged in an average of 4 conflict resolution behaviors per game. At the end of the season, they participated in 6.8 conflict resolution behaviors per game; this change represents a statistically significant improvement. At the start of the season, players engaged in helping behaviors 1.16 times per game; at the end of the season, these behaviors occurred 7.6 times per game. This represents a statistically significant improvement. At the start of the season, players communicated on the court 3.6 times/game; at the end, they communicated 5.8 times/game. This represents a statistically significant improvement. At the start of the season, players provided encouragement to one another an average of 17.6 times/game; at the end of the season, encouragement was offered 24.3 times/game. This increase is statistically significant. Finally, at the start of the season, players participated in circle-ups 11 times/game. At the end of the season, they participated 6.7 times. This represents a statistically significant decrease. The most frequently observed behavior was peer-to-peer encouragement; the most drastic increase was in peer-to-peer helping behavior. With the exception of a reduction in circle-up participation, these behaviors are consistent with the DTG curriculum (see qualitative data for details).

Players' DTG Behavior During Games

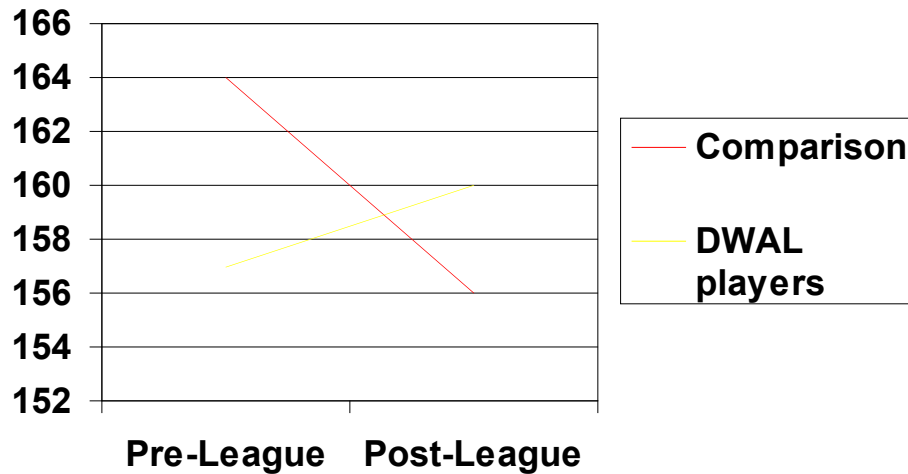


3. Are players showing improvements in target outcomes such as grades, behavior and mental health?

4. Are players in the League improving more than their non-participating peers in the above outcomes?

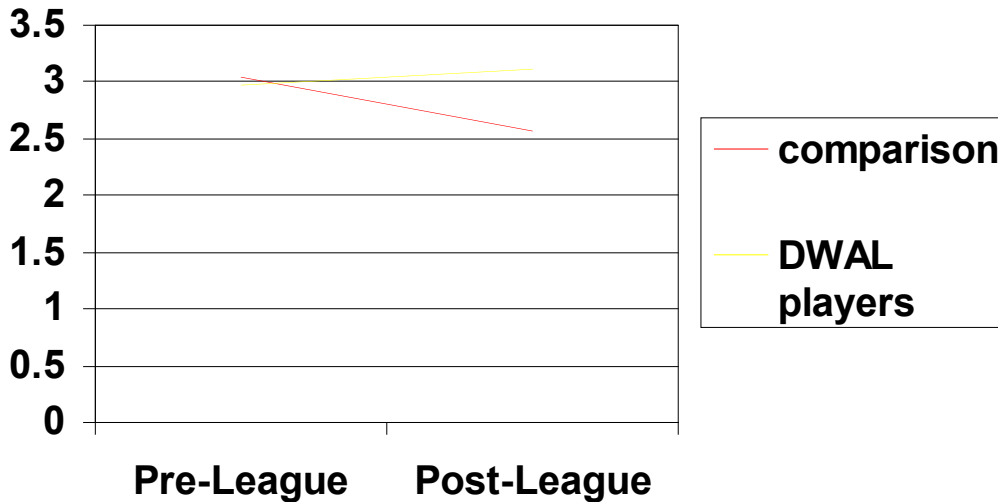
Weight. League participants and their counterparts did not differ significantly after participation in the League.

Weight, Before and After the League



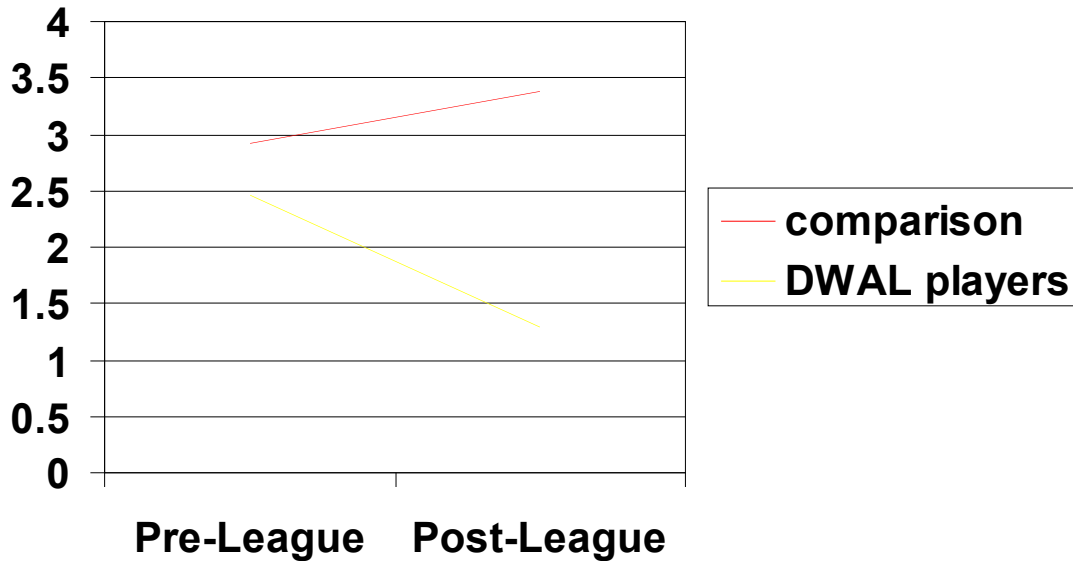
Grades. There were no changes in grades for any participants regardless of League status. League players and comparisons did not differ at post-League.

Grades, Pre- to Post-League



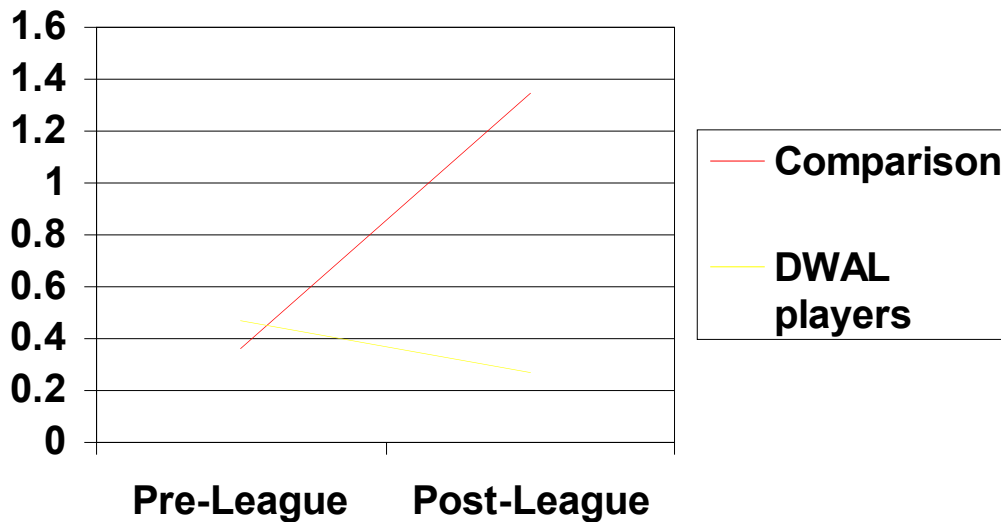
Restrains. League participants had significantly fewer restraints at the seasons' conclusions than their non-participating counterparts ($t(54) = 2.3, p < .05$). Participants in the League improved over time; students not in the league did not show this improvement.

Restrains, Pre- to Post-League

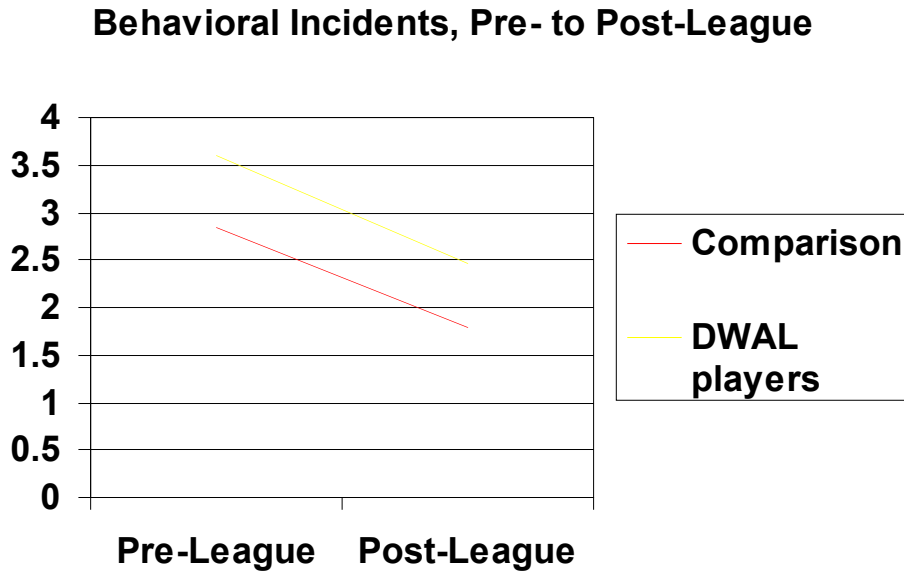


Isolations. Students in the League had significantly fewer post-league isolations than students in the League ($t(54) = 1.8, p < .1$). Students who participated in the League showed a decrease in isolations from pre- to post-League; students not in the league did not show this improvement, and in fact increased significantly.

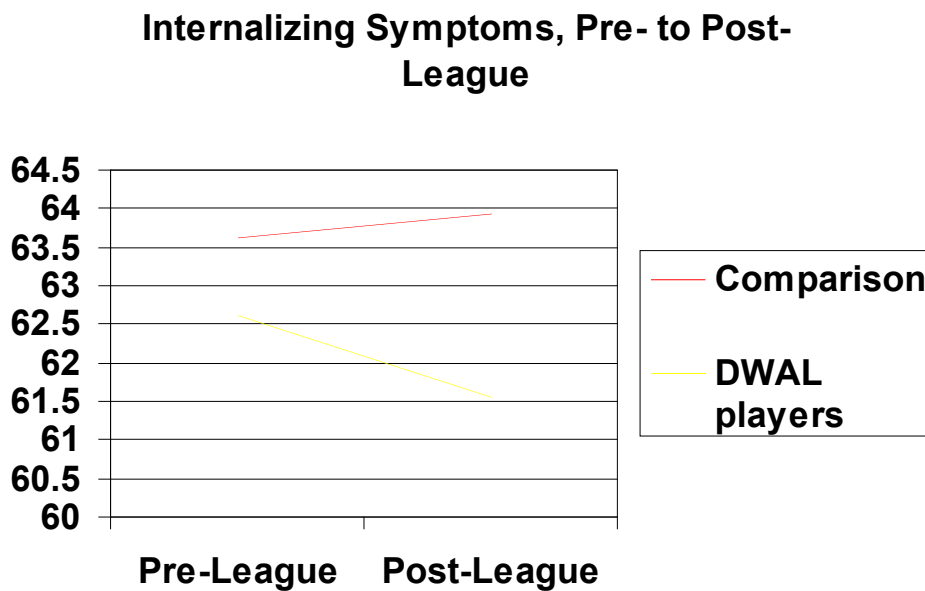
Isolations, Pre- to Post-League



Behavioral Incidents. League participants had significantly fewer behavioral incidents after League participation ($t(54) = 1.08, p < .1$). Incidents decreased across JRI programs regardless of participation.

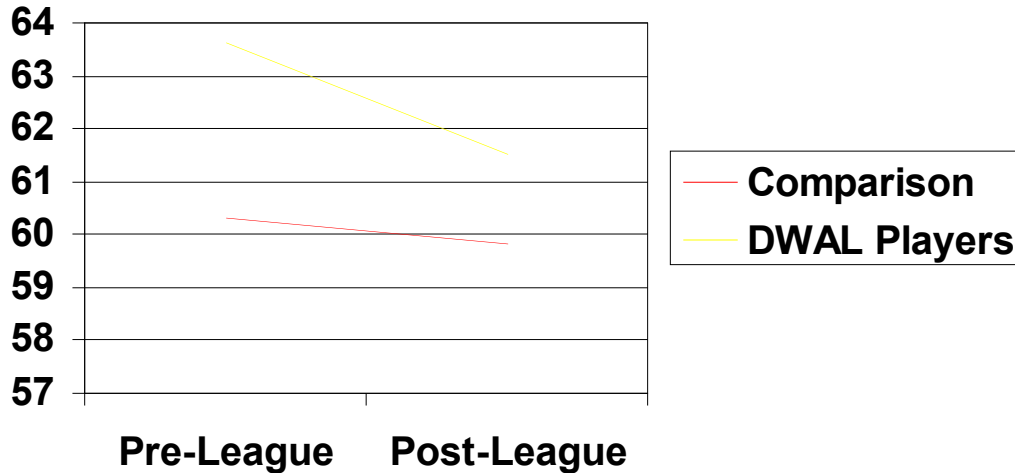


Internalizing Symptoms as Measured by the CBCL. Internalizing symptoms did not decrease for DWAL or other students post-League. However, trends were in the expected direction of improvement.



Externalizing Symptoms as Measured by the CBCL. League participants were not statistically different from non-participants at post-League. However, League participants had higher externalizing symptoms at baseline. Externalizing symptoms decreased significantly for League participants over the course of the League ($t(18) = 1.02, p < .1$).

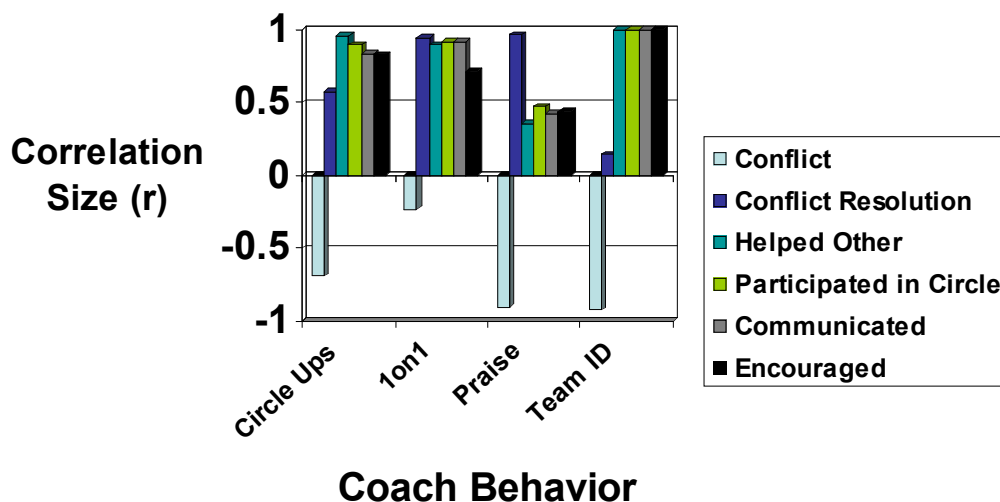
Externalizing Symptoms, Pre- to Post-League



5. Do coaches' DTG curriculum behaviors relate to players' DTG behaviors?

The more frequently coaches used DTG coaching behaviors, the more frequently players resolved conflicts, helped others, encouraged peers, communicated on the court, and participated in circle-ups. The more frequently coaches used DTG coaching behaviors, the less frequently conflicts occurred. The below table demonstrates the correlation between coaching behaviors and player behaviors. The length of the bars in the table, whether positive or negative, indicates how strongly two variables are related to one another. Bars longer than .5 or -.5 indicate a strong relationship.

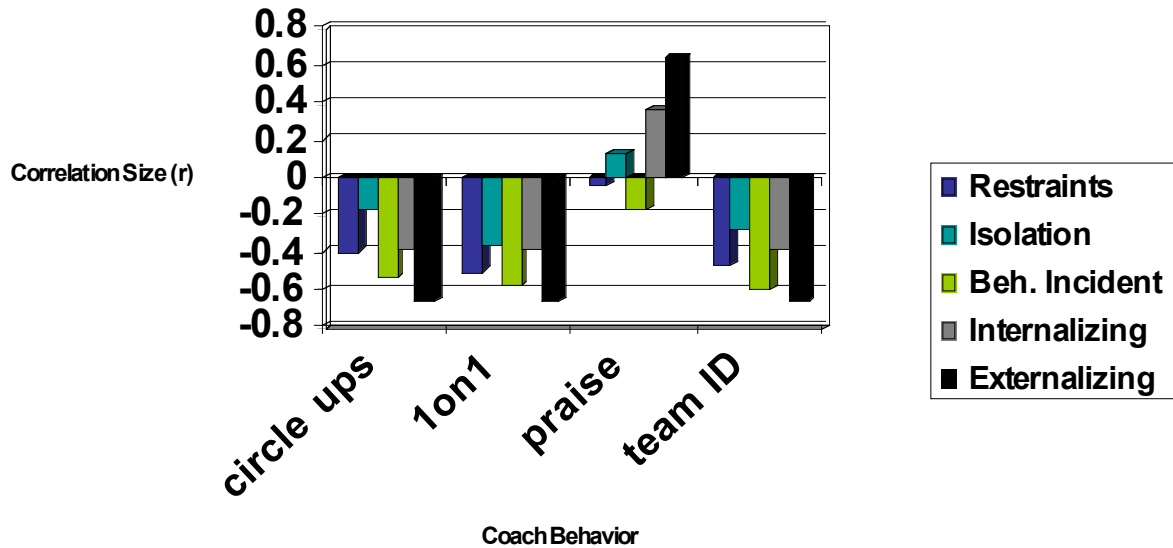
Magnitude of Relationship between Coaches' and Players' Game Behaviors



6. Do coaches' DTG behaviors relate to players' outcomes?

Coaches' DTG behaviors were strongly related to positive student outcomes; the more frequently DTG coaching was used, the more problem behaviors decreased. Paradoxically, the use of specific praise was related to apparent worse outcomes. One explanation for these data may be that coaches used praise more frequently when they knew a player was otherwise struggling, in efforts to "cheer up" the player.

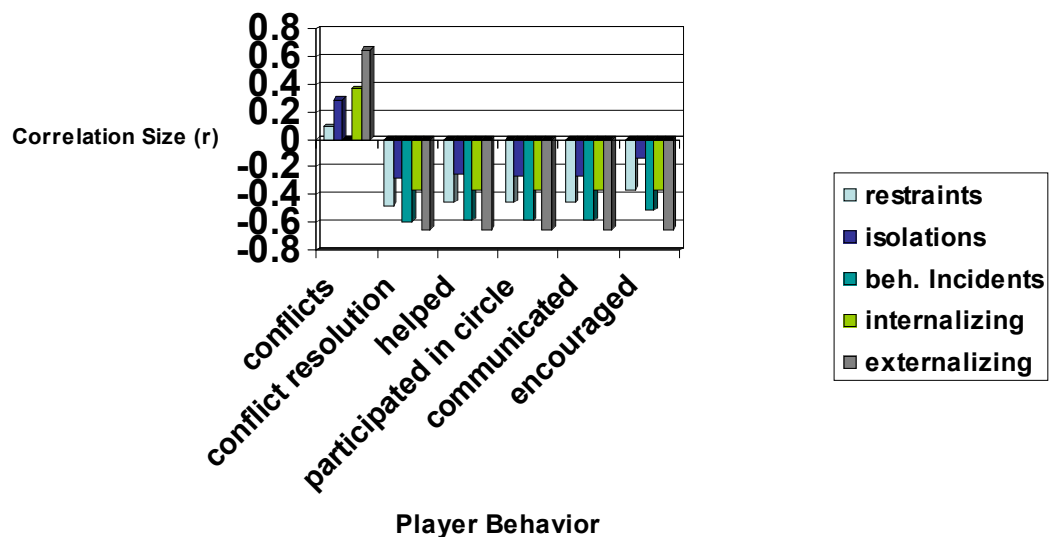
Coaches' behaviors as predictors of player outcomes



7. Do players' DTG behaviors relate to their own outcomes?

The more frequently students engaged in DTG behaviors, the more frequently they showed reductions in restraints, isolations, behavioral incidents, internalizing symptoms, and externalizing symptoms. Participants who had more conflicts on the court had, not surprisingly, more problems off the court.

Players' DTG behaviors as predictors of their own outcomes



Qualitative Outcomes

Observation of games.

The beginning of the season was characterized by relatively low energy at games, infrequent cheering, walking down the court rather than running, insults between players of opposing teams, and “ball hogging” by experienced players.

Student DTG behavior appeared to steadily improve throughout the program. Most notably, students appeared to brush off conflicts and to offer helping behavior more frequently. For example, in one of the final games of the season, one team won by a considerable advantage. A student from that team went over to another team and said, “You guys played hard. You should be proud of yourselves.” Whereas at the beginning of the season, students who became angry during a game would often refuse to shake hands at the end of the game, all students shook hands with the opposition at game’s end by the end of the season. These changes appeared to take place as basketball skills improved, but also as DTG culture “took hold.”

There is one supplement to these observations. Midway through the season (approximately March in a January-May season), students’ emotional outbursts and conflicts appeared to increase. The games had rapidly escalated in intensity, but many players lacked the coordination to prevent accidents on the court. This situation led to frequent collisions and accidental blows, which were often interpreted as intentional. Girls were giving themselves time outs and crying, colliding with others and making threatening gestures, and vocally threatening to quit the team. For two or three games, the league appeared in chaos. However, after a couple of “rough” games, while the conflicts remained, attempts at resolution became more and more obvious. If two players collided and became upset, a teammate would shout “shake it off, it’s an accident” from the sidelines, or the offending player would walk over to apologize to the opposing team. Teammates would take a moment to speak to their team, making statements such as “I’m sorry I lost my temper. It led me to let the team down. I’m working on being able to keep it together so I can stay in the game.” Over the next few weeks, the conflicts began to fade even though the intensity and helping behavior remained.

Coaching behavior followed a similar arc. At the start of the season, the coaches were highly focused on basketball skills, overlooking the curriculum’s treatment aspects. Coaches frequently appeared to focus on the score rather than on helping each team member define her own goals and successes. They appeared to forget to hold essential circle-ups to prepare and debrief, provide specific praise, and talk one-on-one with students. In order to address these weaknesses, the curriculum development staffer began offering phone consultations with coaches. The quality of the coaching appeared to improve dramatically, with coaches frequently emphasizing sportsmanship over score and fun over final score.

Coach perceptions of the program.

During the coaches’ focus group, coaches rated the season positively overall. They reported taking pride in their players’ growth as leaders and as athletes. They observed that the League seemed to be a significant motivator for maintaining positive behavior at their residential schools. They also reported a sense of increased efficacy as both coaches and as youth development staff. Overall, they reported that the trainings prepared them for the season, but that regular feedback and “in vivo” coaching on their coaching (e.g., reminders to hold circle-ups) would be helpful. Some coaches noted that their programs did not adequately support their

League activities. For example, for some coaches, games and practices were held “off the clock” on the coaches’ personal time.

Student perceptions of the program.

Students reported liking the opportunity for physical activity, getting out of their program sites, meeting other students, and winning. They also reported a sense of community with other players, and greatly appreciated practices. They said that the League “just helped me deal with life” and “helped me feel like I can do something right.” Students noted that they would appreciate more time to practice, from once a week to daily. They also reported that the referees were very helpful and fair. With respect to weaknesses of the program, they reported that their program staff (non-coaching staff who chaperoned games) were sometimes “overbearing.” They also noted that sometimes other teams were rude to them, or that they had conflicts with other teams’ players “from when I was on the street.” One un-anticipated piece of feedback was that some players reported feeling uncomfortable when other players’ fathers or brothers attended games: “I felt like they were looking at us and I didn’t like it. But the coaches helped me feel okay.” Overall, student feedback was largely favorable: all players reported that they would play again, in future seasons.

Limitations

These data are limited for several reasons. First, the small sample size of the study means that statistical conclusions analyses may be somewhat unreliable. This problem may have been enhanced by missing data, particularly for mental health measures. Because the study methodology relied upon chart review (a necessity of human subjects protections compliance), missing data could not be searched out for the purposes of this study. However, data trends appear to provide strong indications in support of this program.

The second limitation is with respect to the observations of game behaviors. Because only one evaluator was present for each game, surely significant events were missed. The complexity of interactions occurring with 25 students and staff in a room at a given time ensures that the data presented herein is only a sample of all events, which transpired.

CONCLUSIONS AND RECOMMENDATIONS

Based on the data presented here, the DTG curriculum employed by the Doc Wayne Athletic League appears to have been a success. Not only did participants in the League have an opportunity for exercise and socialization, but they also demonstrated significant off the court mental and behavioral health improvements compared to their peers. Moreover, these improvements seem to be specifically related to the curriculum, and not just to basketball in general, as improvements were correlated with DTG coaching. It is of note that the Doc Wayne participants were actually worse than comparison students at the pre-season data collection point; therefore, their gains are all the more reason for celebration.

Several changes could be made to intensify the impact of the program. First, coaches appeared to improve significantly in their DTG coaching from beginning to end of the season. This suggests

that time is required to fully integrate the program's goals. Therefore, employing coaches from season to season seems important. Next, students and coaches alike noted that more practices would increase the benefit of the program. This request points to the need for greater resources and support for the program. To fully implement practices between games, schools need the resources to pay staff for their coaching time.

From the perspective of trauma-informed care, this program involves gold-standard adjunctive treatment delivered in a highly efficient fashion. The DTG curriculum has the potential to significantly impact a large number of traumatized children in a relatively easy-to-deliver manner, as all coaches are laypersons and not therapists. The program has met its goals of effective adjunctive treatment for dysregulation of emotion and behavior and stands alone as one of the few programs nationwide, which can demonstrate such significant impacts with this population.