
Developing Inclusive High School Team Sports for Adolescents with Disabilities and Neurotypical Students in Underserved School Settings

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The authors investigated the effects of a collaborative after-school inclusive sports program on adolescents with disabilities and neurotypical students in underserved high schools. The program brought together a large urban school district and a private after-school program to provide a service on the school site. The goals were to provide a truly integrated sports environment for adolescents with disabilities and to provide underrepresented minority students an opportunity to gain service learning, improved social-emotional development, and greater self-perceived impact. The project was feasible and indeed continued well beyond the evaluation period. Quantitative results indicated that the neurotypical adolescents felt they had an impact on improving the responsibility of their peer athlete, and they felt they had better perspective taking after participating. Descriptive comments indicated that the children with disabilities enjoyed participation and that this inclusive program may have provided an additional avenue for a subset of the population to engage more in the activities of their school. Program details are presented to encourage further research and replication.

KEY WORDS: *adolescents; cross-system collaboration; developmental disabilities; hard-to-reach populations; social development*

There is little doubt that children of all ages who participate in team sports gain not only physical advantages, but also social-emotional benefits. Zuckerman and colleagues' (2021) recent meta-analysis of 70 years of studies of children and adolescent (under 25 years of age) team sports participation showed significant positive impacts on critical health outcomes. Behaviorally, team sports participation correlated with decreased rates of tobacco and alcohol/drug use, and improved health outcomes (in 80 percent of studies). Psychologically, team sports participation was associated with decreased depression and anxiety and overall improved mental health across 74 percent of the studies. Finally, academic performance, commitment, psychosocial health, social behavior, and avoidance of high-risk activity were improved in 70 percent of studies. Other qualitative benefits included stronger social networks, better positive routines, higher resilience and work ethic, and stronger character building (Zuckerman et al., 2021).

Team sports in school have specific protective factors for students from economically disadvantaged and/or underrepresented minority groups. Two recent well-designed longitudinal studies took both race and income level into account as they examined team sports in economically disadvantaged neighborhoods. The first examined over 1,000 Black high school students (Weston et al., 2020), and the second examined 16,200 Black, Hispanic, Asian, and White high school students (Chang et al., 2021). Results were consistent in that for Black students, physical activity (team sports participation mainly through schools) influenced GPA and perception of school attitudes (i.e., feeling safe in school, school pride), and Black athletes had lower odds of dropping out (62.8 percent lower than among nonparticipants). Hispanic, low-income students in sports experienced similar benefits with lower probabilities of dropping out (55.2 percent lower than among nonparticipants) and lower rates of misbehavior.

Indeed, underserved students who involve themselves in any school activity (including school-based team sports) tend to have better outcomes than their nonengaged peers. Heath et al. (2018) synthesized studies on benefits of participation by gender, socioeconomic status, race/ethnicity, and immigrant status. The implication regarding race/ethnicity was that youth of color might benefit as much or more than White youth in terms of noncognitive outcomes (social competence, behavioral issues), and higher dosages of participation were advantageous for youth of color for both academic and nonacademic outcomes (social integration, school connectedness, and psychosocial adjustment). Students who volunteer also tend to be more engaged in their schools, have fewer depressive symptoms, greater self-esteem and personal-social development, reduced risk of problem behaviors, improved academic functioning, and greater career awareness (Bang et al., 2020; Billig, 2000; Kuperminc et al., 2001).

For youth with developmental disabilities, opportunity to participate in team sports primarily comes from community-based sports programs where volunteers assist participants (e.g., Special Olympics, Unified Sports, Challenger Leagues). There is a wealth of literature showing the benefits for not only the athletes (Harada et al., 2011) but also the volunteers (Hallmann et al., 2020). Higher self-esteem, better reported quality of life, and less stress are likewise associated with team sports involvement for children with disabilities (Crawford et al., 2015). Critics of these programs recognize that these programs are valuable but have concerns about the lack of true integration; that is, children with and without disabilities participating *together* (Hourcade, 1989; Klein et al., 1993). An additional concern is that community sports programs are just that—in the community and not embedded in the school. There are a few exceptions, such as the Minnesota Adapted Athletic Association. Their extracurricular adapted sports program is a model for students with intellectual and physical disabilities (Potter, 2013), but such programs are generally limited to students with disabilities using modified rules, adapted playing surfaces, and the like.

There appears to be little, if any, extant literature that evaluates the feasibility and potential impact of a truly inclusive school sports program on adolescents with disabilities and the neurotypical peers

who participate as part of a service learning opportunity in underserved schools.

PROGRAM DESCRIPTION

This article describes a collaborative, nonprofit program called Team Prime Time (TPT) that serves students from underrepresented backgrounds by providing an inclusive and competitive “varsity” sports program for adolescents with disabilities paired with typically developing peer coaches. TPT is an on-campus, after-school program where neurotypical students (peer coaches) and students with disabilities (athletes) from the same school practice together and then compete against other schools in a league. Peer coaches are recruited and trained during the first two to three weeks of the semester. Then peer coaches and athletes practice together during a preseason twice a week for four weeks, and after that games occur twice a week (in place of the practices) for the next four weeks. TPT is the result of a partnership between the district-contracted private after-school program, the special education division of the public school district, and the athletic directors and administrators of the selected high schools with multiple options for funding sources.

TPT follows an ecological/transactional theoretical framework such that adolescents are embedded in their social and environmental contexts. Participants’ individuality, interactions, and cultural considerations intertwine with psychosocial and emotional development (Cairns & Cairns, 1991; Cicchetti & Toth, 1997). An ecological framework utilizes indirect models such as community collaborations, interventions, and consultations that compliment direct services (schools) to increase impact and spread the benefit (Meyers et al., 1990). At the implementation level, TPT utilizes two main evidence-based practices. First, PEERS, an evidence-based social-emotional curriculum is used to guide instruction and mentorship (Laugeson et al., 2012). Second, a same-school peer mentoring model (DuBois et al., 2011) provides coaches (neurotypical students) the opportunity to volunteer to work with athletes (students with disabilities), in a program that modifies rules to meet the needs of both populations. Broadly, DuBois and his colleagues’ meta-analysis of 73 studies over a decade (1999–2010) evaluated mentoring programs directed toward children and adolescents from a variety of backgrounds (education, minority, at-risk status, etc.). Effectiveness was supported across behavioral, social, emotional, and academic domains

of young people's development. More to the point, Athamanah and colleagues (2019) summarized social outcomes for peer mentors and mentees across the child life span for persons with disabilities. They found extremely limited controlled research on peer mentoring at the secondary level, but note that individuals with and without developmental disabilities experience positive outcomes in mentoring situations related to academics, social, daily life (i.e., responsibility), and friendships.

School-based interventions should begin with a pilot design for feasibility until support and resources are obtained for a more rigorous evaluation (Farrell et al., 1996). The purpose of this article, then, is to inform school and community providers that a truly integrated after-school sports program can operate in a contextually valid environment with potential benefits to all. To do so, we examine feasibility (can this program exist?) by describing the needed organizational (urban high school) resources. We describe participation and preliminary benefits: Who and how many students participated? For students with disabilities, what are their perceptions of their own benefits? For the neurotypical students, what are their perceptions of their own ability to positively impact others and their own social emotional development? Finally, we identify sustainability: Will schools successfully complete three full years (six seasons) of TPT?

METHOD

Participants and Procedure

Schools. The district special education director identified seven diverse urban high schools that had self-contained programs for special education students. Two seasons (basketball and soccer) were approved for a three-year period (2014–2017). Table 1 describes the demographics of the seven schools.

Athletes and Coaches. TPT provided the school administrator with narrative for the school bulletin and meeting dates. If any student arrived at initial meetings to participate in TPT as an after-school activity, a school packet (as protocol for all after-school programs at the schools) was sent to the family and included the human subjects parent consent form to collect data anonymously. For the athletes, at the end of the season, the TPT staff presented an assent form for collecting data anonymously and a single questionnaire only if it was their first season and if their parents consented. If

necessary, the special education teacher assisted with reading the assent form and questionnaire. All 141 athletes presented with the questionnaire assented. For the coaches, the TPT staff presented the assent form at the start of the season with a prequestionnaire during the first meeting only if it was their first season and their parents consented. All 70 peer coaches assented and returned the forms. It was in the assent form and scripted verbally, that participation in the program was not contingent on their completion of the questionnaire; nevertheless, all students completed it. The postquestionnaire was given at the last meeting of the season, and over the course of the three-year period a total of 20 questionnaires (28.6 percent) were not returned at post ($S1 = 4$, $S2 = 2$, $S3 = 4$, $S4 = 3$, $S5 = 4$, $S6 = 1$, and $S7 = 2$). TPT reports a 3.5 percent attrition rate across all schools, and thus most of these students were still participating but did not return the final questionnaire. Using the prequestionnaire target constructs, no differences by demographics or responses were identified between those who returned the postquestionnaire and those who did not.

Measures and Analysis Plan

Organizational Support. To measure organizational support, we describe resources needed and the cost through organizational budgets. Resources included school staff, the facility (gym/fields), and buses. The cost of running the program included a staff stipend and bus costs. We also detail funding sources.

Participation, Satisfaction, and Preliminary Benefit. Descriptive data are presented to identify who participated. For satisfaction and preliminary benefit, given the pilot nature of the quantitative data, correlations were examined to identify initial relationships, and then a single group pre- and postexperimental design was used to evaluate the outcomes of the two types of participants (special education athlete and neurotypical peer coach). Descriptive responses by the coaches to the open-ended questions are included for additional insight.

For the athletes, we created a simple, positively worded questionnaire to identify satisfaction at postparticipation. This was due to the lack of published questionnaires that evaluate the program-specific goals and those that would accommodate the athletes' special needs. This questionnaire was

Table 1: Participating School Demographics 2016–2017

School	1		2		3		4		5		6		7	
	<i>n</i>	%												
Total enrollment	1,967		1,658		2,719		1,922		1,269		1,271		2,076	
Graduation rate		82		92		86		85		67		72		96
Ethnic breakdown														
Black	243	12	413	25	722	27	320	17	665	52	184	15	420	20
Latinx	1,265	64	880	53	1,379	51	1,079	56	584	46	980	77	803	39
White	265	13	187	11	440	16	114	6	20	2	19	1	514	25
Free or reduced-price lunch	1,493	76	1,237	75	1,907	70	1,620	84	1,088	86	1,174	92	704	34

Notes: Data taken from the school district's Census Day Enrollment (<http://www.ed-data.org>); data are reported for Black, Latinx, and White students; other categories are not reported here.

given to the athletes at the end of their first season. Satisfaction questions were written in a direct manner, and students either read the document or were assisted verbally. Students pointed to one of four visual prompts to indicate their response. Questions were developed within the following domains to investigate the athlete's satisfaction: emotional, game, school pride, and social. The athlete was also asked a single question to indicate their overall satisfaction with the program. Two high school volunteers and one coauthor, all who were not present during the creation of the questions, sorted the questions separately into the four domains, and 100 percent agreement was obtained on the first attempt. Table 2 provides the specific items and their placement within the domains, given that this was a nonstandardized questionnaire.

The peer coach questionnaire was provided to the student coaches prior to their first season and then at the end of the season. The questions were the same on both versions of the questionnaire but ordered differently and worded in the future tense (for pre) and past tense (for post). Again, because of the very specific program, no single questionnaire was found that could examine the goals of the program. Thus, the coach questionnaire items were taken directly from different existing published questionnaires.

The questionnaire had two sections, and responses were counterbalanced and worded both positively and negatively throughout. The first section focused on the coach's self-perceived impact on the athletes. The questions required respondents to rate a series of statements on a five-point scale ranging from "strongly disagree" to "strongly agree." The statements of self-perceived impact on their athletes

were then aggregated into the following constructs: social skills, responsibility, physical skills, and emotional/coping behavioral skills. The questions were taken directly from the corresponding four domains of the Attitudes Toward Inclusive Education Scale (Wilzenski, 1992) and adapted by adding "I believe . . .," for example: "I believe I can help my athlete (e.g., control their behavior and not disrupt activities)."

The second section focused on the student coaches' perceptions of themselves. The questions were taken directly from four different questionnaires measuring the following constructs: self-esteem (Rosenberg Self-Esteem Scale; Rosenberg, 1965; see also Blascovich & Tomaka, 1991), perspective taking (Empathic Concern and Perspective Taking subscales of the Interpersonal Reactivity Index; Davis, 1983), school engagement (Young Students' Engagement in School Scale; Cobell, 2009), and future prospects (Obtaining a Job/Starting Work/College, Personal Power subscales from the Things I Worry About Scale; Gallagher & Millar, 1996; Millar et al., 1993). These domains again required respondents to rate statements on a five-point scale ranging from "does not describe me at all" to "describes me very well."

The questionnaire also had five open-ended questions associated with each of the previously mentioned domains with the prompt "please elaborate" plus one general "open comments." The director and the second author screened the comments and created categories. The communication improvements category was defined as any comment that related to the athlete's ability to talk, express themselves, or engage in conversation. The cooperation improvements category was defined as any comment that related to working together, teamwork, or saying

Table 2: Athlete Satisfaction Questionnaire by Construct

Emotional satisfaction	<ul style="list-style-type: none"> • How did your sport make you feel? • How do you feel about your own self-confidence at school? • Are you treated with respect by students in the school? • Are you more accepted on campus because you were on the team?
Game/sport/logistics satisfaction	<ul style="list-style-type: none"> • How did you feel about the competitiveness of the game? • How did you feel about playing games against other schools? • Did you become a better player? • Do you want to play sports after high school more than you did before joining the team? • Do you want to play these sports again at your school?
School pride satisfaction	<ul style="list-style-type: none"> • How did you feel about the team uniforms? • How did you feel when you saw your teammates wearing the team sweatshirt? • Do you have more school pride because you played on the team? • Do you feel like an important person at school because you played on the team? • Do you want to do more activities at school since you played on the team? • Do you want to go to school more because you were on the team? • Is high school more fun because you joined a team? • Do you want to stay in school more because you joined a team? • Does being on a team make you want to do better in school?
Social satisfaction	<ul style="list-style-type: none"> • Do you have more friends because you played on these teams? • How did you feel about your teammates? • Did you make new friends because you played on these teams? • Do more students at school know who you are because you played on the team? • Is there one teacher or adult you can talk to at school? • Are people friendlier since joining the team?
Overall satisfaction	<ul style="list-style-type: none"> • Overall, please rate your level of satisfaction with the program

sorry or acknowledging a problem. The social competence improvements category was defined as any comment that related to engagement with others, coping, maturing, and learning from others. The behavioral improvements category was defined as any comment that related to direction following, appropriate or maladaptive behaviors, and overall participation. The last two categories were called general positive and general negative, and these were used when a student wrote nonspecific statements in either a positive or negative tone. Two high school volunteers independently transcribed and sorted responses into the categories. Percent agreement was 82 percent, and the remaining statements were sorted after discussion and consensus between the two volunteers and the third author was obtained.

Sustainability. To measure school-level sustainability, a single question was asked of either the athletic director or the teacher of the special education classroom at the end of each year: “Will this program continue next year?” The same professional

was then contacted at the start of the following academic year and asked, “Is this program scheduled to happen again this coming year?” This question was asked again at the end of the 2014–2015 school year, at the start and end of the 2015–2016 and 2016–2017 years, and then at the start of the 2017–2018 year. To illustrate student sustainability, we report the number of returning peer coaches. Given the large number of athlete participants each season, sustainability was not measured by return participation. Further, for students with disabilities, classrooms and Individualized Education Program (IEP) placement options shift in large public schools for many reasons, and thus control and knowledge of those variables were beyond the scope of the program and the research.

RESULTS

Organizational Support and Resources

School support included the following resources: district administrator, one to two school site

administrators, the special education teacher, and an after-school program (TPT) staff member. At the district level, the school district administrator and the after-school program entered into a no-cost memorandum of understanding to provide TPT at high schools. This process did not require additional salary for either person.

At the school level, administrators and the special education teachers were responsible for recruitment. Administrators coordinated the recruitment of the neurotypical children in three ways. First, announcements were placed in the school daily bulletin regarding voluntary participation in the program. Second, counselors and social workers offered the program to students who required restorative justice (e.g., attendance problems, minor disciplinary concerns) as one option for a service learning opportunity. Third, administrators requested coaches of school teams to let their athletes know of this opportunity to participate. In this district, students need to gain and document service learning hours to graduate, but participation in TPT rather than a variety of other possible options was voluntary. Please note that TPT is not regulated by the California Interscholastic Federation, it is considered an after-school activity, and the sports within TPT were off-season so as not to interfere with team seasons or use of the athletic facility (i.e., soccer is a winter sport for neurotypical athletes and for TPT, soccer was in the fall). The special education teachers from the Special Day Classes (SDCs) were provided with flyers and after-school activity waivers to send home with students in both English and Spanish. For those students who did not return the waiver, teachers provided information about the program to parents through phone or in-person contact. At all schools, the administrators and the SDC teachers who participated considered this part of their positions and did not require additional time or salary.

At the implementation level, the athletic directors of the secondary schools coordinated the on-site practices and the interscholastic games with the other schools (facility, transportation, schedule, etc.). This staff did not require funding as these tasks are part of the athletic director's job description. The one after-school TPT staff "head coach" (funded) coordinated and ran information meetings, trained the neurotypical student volunteers, and supervised the practices and games. The component costs of implementation are detailed in [Table 3](#).

Participation, Satisfaction, and Preliminary Benefit

Special Education "Athletes." A total of 141 first-time special education "athletes" participated across the seven schools and the six seasons. The participants self-reported their gender and grade. They were mostly boys (86 percent). There was a fairly even distribution across ninth, tenth, and 11th grade, with 42 percent of the participants being 12th graders ([Table 4](#)). Students who participated in the program in any subsequent season were not included in the data collection. All students had an IEP and had been placed in SDCs, where most of their education occurred utilizing an alternative curriculum, so they were unable to access traditional sports as a result of their qualification.

Pearson correlations were conducted between age and gender and the five satisfaction subdomains. Only descriptive statistics were used to demonstrate outcome given the nature of the questionnaire. There was little variability in the responses of the athletes on their emotional satisfaction ($M = 3.4, SD = 0.5$), school pride satisfaction ($M = 3.5, SD = 0.6$), game satisfaction ($M = 3.6, SD = 0.5$), and social satisfaction ($M = 3.4, SD = 0.5$) after participation in the program. The athletes were all very satisfied in general ($M = 3.6, SD = 0.6$). Further, there were no significant differences on those constructs using an independent sample *t* test for gender or correlations with grade and age. The highest rated constructs were game satisfaction and the single overall question of "How satisfied were you?"

General Education "Coaches." A total of 70 general education, first-time coaches participated across the seven schools. Students who did the program a second season, in either the same year or any following year, were not included in data collection. Coaches self-reported their age, gender, ethnicity, and grade level. About 59 percent of coaches were boys, and more juniors and seniors participated (see [Table 4](#)). Two coaches were dropped from data collection due to invalid questionnaires; thus, data were analyzed for 68 coaches in the study.

Pearson correlations were conducted between age and gender and the eight questionnaire constructs. The four from section 1 on self-perceived impact were social skills, responsibility, physical skills, and emotional/coping behavioral skills. The four from section 2 were self-esteem, perspective

Table 3: Budget and Funding Sources for One School Per Season as Reported by TPT Proposal Budgets

Item	Cost per Season	Onetime Cost Expected to Last Three Years
District administrator	No cost	
Athletic director	No cost	
Special education teacher	No cost	
After-school staff	\$1,200	
TPT "head coach"		
Referees ^a	\$150 per home game	
Uniforms		\$800
Equipment	\$500 (first aid, balls, cones)	\$750 (large equipment)
Transportation ^a	\$400 per bus (away games)	
Facilities	Free	
Snacks/pizza	\$250	
Curricular materials	\$100	

Notes: Funding sources include after-school programs, LCAP (Local Control and Accountability Plan) funding, Title I funding, general fund/special education funding, school club fundraising (e.g., Best Buddies to host the "end-of-season party"), Booster Clubs, athletic department, State Regional Centers, ASES (Afterschool Education and Safety) funding (based in California), and local donations for large and small equipment. TPT = Team Prime Time.

^aSchools can alter the number of home and away games, and these costs would increase or decrease accordingly. Further, costs of referees and buses vary per geographic area.

Table 4: Participants by School

		Special Education "Athlete"						
School	n	Gender	Grade Level				Age	
		Male/Female	9th	10th	11th	12th	M (SD)	
1	34	31/3	7	10	6	11	16.6 (1.6)	
2	17	16/1	4	4	3	6	16.6 (1.9)	
3	18	17/1	0	4	7	7	17.3 (1.2)	
4	20	16/4	2	3	5	10	17.9 (2.3)	
5	21	19/2	5	3	5	8	16.4 (2.0)	
6	25	17/8	6	1	3	15	17.6 (2.7)	
7	6	5/1	3	1	0	2	15.2 (1.6)	
Total	141	121/20	27	26	29	59	16.8 (1.9)	

		General Education "Coach"						
School	n	Gender	Ethnicity	Grade Level				Age
		Male/Female	W/L/B/A	9th	10th	11th	12th	M (SD)
1	17	14/3	1/12/3/1	4	1	6	6	16.4 (1.3)
2	8	1/7	0/8/0/0	1	0	0	7	16.9 (1.2)
3	4	2/2	0/3/0/1	0	0	0	4	17.2 (0.5)
4	12	3/9	1/3/8/0	1	2	2	7	16.7 (1.2)
5	8	8/0	0/4/4/0	2	2	2	2	15.5 (1.2)
6	8	5/3	0/7/0/1	1	1	4	2	16.6 (1.5)
7	11	7/4	1/5/3/2	1	1	5	4	16.7 (0.6)
Total	68	40/28	3/42/18/5	10	7	19	32	16.6 (1.1)

Notes: W = White, L = Latinx, B = Black, A = south and/or east Asian.

taking, school engagement, and future prospects. Follow-up paired sample *t* tests were used to compare pre- and postgroup responses on the four subdomains from section 1 and the four subdomains from section 2. Descriptive data were categorized and presented.

Table 5 shows pre- and posttest findings on coaches' perceptions. There was little variability overall in coach responses, and indeed most coaches rated their impact and self-perceptions fairly highly both before and after participation. Pearson correlations were used to examine whether age or gender contributed to variability in ratings and then follow-up independent sample *t* tests were conducted. About 40 percent of the coaches were female and only gender yielded significant results. Girls ($M = 4.2$, $SD = 1.1$) rated their own self-perceived impact on social skills significantly lower than boys ($M = 4.7$, $SD = 0.4$), $F(64) = 2.15$, $p < .05$. On the other hand, girls ($M = 3.9$, $SD = 0.4$) rated their perspective-taking skills as higher than boys ($M = 3.6$, $SD = 0.5$), $F(64) = -2.54$, $p < .05$.

In terms of pre- to postprogram participation changes, there were significant differences on two constructs. The coaches felt that their self-perceived impact on their athlete's responsibility [$t(66) = -5.0$, $p < .001$; Hedges's $g = .74$ at 95% confidence interval (CI), moderate effect size], and their own ability to take perspectives of others [$t(62) = -3.2$, $p < .005$; Hedges's $g = .61$ at 95% CI, moderate effect size] improved over the season. These moderate effect sizes are within the range of similar studies

within this population and target variables (Swanson & Hoskyn, 1998; Walker et al., 2020). Given that gender was correlated with perspective taking, a stepwise regression analysis was conducted with gender and prequestionnaire as independent variables, and postquestionnaire perspective taking as the dependent variable. The model found only the prequestionnaire variable as significant. No other significant pre- to postgroup effects were found.

Although there were no significant findings across the school engagement construct before versus after participation, given the demographic nature of these school populations and the purpose of this program to provide an opportunity for school engagement, we looked at three of the questions that asked specifically about school participation before participation in TPT. We found that 55.2 percent of the students said they rarely or never participated in student government, 64.2 percent said they rarely or never participated in the newspaper/yearbook/media, and 24 percent said they rarely or never participated in any clubs in the school.

Descriptively, 36 students (53 percent) made at least one comment. Communication improvements were mentioned 21 times, for example:

- "We had great conversations"
- "My athletes became more comfortable with listening and speaking"
- "He started to ask me for help"
- "My athlete started conversations on their own by the end"

Table 5: Paired *t* Test on Student Coach Questionnaire Pre- and Postprogram

Variable	Preprogram		Postprogram			Hedges's <i>g</i>
	<i>n</i>	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>t</i>	<i>p</i>	
Self-perceived impact						
Social skills	65	4.5 (0.8)	4.4 (0.5)	1.1	ns	
Responsibility	67	4.0 (0.9)	4.5 (0.5)	-5.0	.000	.74
Physical skills	65	4.4 (0.8)	4.5 (0.5)	-0.8	ns	
Emotional/coping/behavior	65	4.5 (0.8)	4.4 (0.5)	1.0	ns	
Personal self-perceptions						
Self-esteem	66	4.2 (1.2)	4.5 (0.9)	-1.5	ns	
Perspective taking	63	3.7 (0.5)	4.1 (0.5)	-3.2	.002	.61
School engagement	64	3.5 (0.9)	3.6 (0.8)	-1.0	ns	
Future prospects	65	3.9 (0.5)	3.9 (0.6)	0.1	ns	

Cooperation improvements were mentioned 10 times, for example:

- “My athlete and I learned to work as a team”
- “My athlete listened to their teammates more to work together”

Social competence improvements were noted 27 times, for example:

- “My athlete’s awareness of others improved”
- “He became more confident and enthusiastic”
- “She became friendlier and more respectful to new people”

In terms of behavioral improvements, 56 coaches mentioned improvements in areas such as following directions, coping (or “walking away” when frustrated rather than hurting others), coming prepared, arriving on time, and practicing without quitting. General positive statements such as “I had a great time” or “Great program” occurred 27 times, and general negative statements occurred 11 times. Most of the negative statements were that athletes did not handle losing well throughout the season or did not improve in certain skills (e.g., “He still didn’t talk much”; “He had a hard time seeing positives when we lost”).

Sustainability

When questioned about the continuation of the program at the end of each year (2015–2017), 100 percent of the key personnel at the schools stated that they planned to continue the program in the coming year. This was confirmed, as throughout the three-year data collection period, all seven schools continued the program. Further, in the fall of 2017, all seven schools stated the program would continue past the data collection period. For the peer coaches, 31 (45.6 percent) returned for at least one additional season, another 19 (27.9 percent) were graduating seniors, and 18 (26.5 percent) did not return. It is to be noted that regular season sports may have interfered with some students’ ability to volunteer again.

DISCUSSION

Evidence-based change at the school level and the ability to start new, lasting programs by any entity is a challenge (Hunt, 2010); thus, positive findings on the feasibility of TPT are quite encouraging. TPT successfully introduced a fully inclusive sports league into seven large urban high schools, and the

adolescents with disabilities seemed quite satisfied with the opportunity. The model, as described, also seems replicable.

The results from the neurotypical adolescents involved in TPT also show significant promise. First, the coaches felt they had an impact on the athletes’ responsibility skills. Taken together with the descriptive comments on behavioral improvements and better participation, this was expected, given the available literature on the advantages of peer mentors/buddies. Benefits such as more participation, better behavior, and better responsibility were the result of having a paired neurotypical peer (Copeland et al., 2002; Tzani-Pepelasi et al., 2019). Second, the finding that the coaches improved their ability to take other people’s perspectives is also consistent with extant literature. In a review of the literature of volunteers in disability sports, O’Flynn et al. (2021) found that a main benefit associated with volunteering was *disability confidence*, defined as positive attitude, empathy, understanding, and communication fluency toward others who are different.

Interestingly, the coaches had no change in their self-esteem or their beliefs about the future, because they all reported very high scores in these areas prior to starting the program. Research supports high self-esteem both for Latinx and Black adolescents (Greene & Way, 2005; Porter & Washington, 1993). The school engagement data were also not statistically significant; however, a closer analysis of the questions directly asking about participation in school activities showed that TPT appeared to give about a quarter of the students a different avenue in which to participate. Further, evidence suggests that prosocial girls are most often the demographic to volunteer with persons with disabilities (Laghi et al., 2015), and thus, taken together, TPT may have provided a service learning opportunity that was unique for a subset of an urban high school population (i.e., lesser-involved boys).

Limitations and Future Research

Process observation, as part of formative evaluation, is essential to understand the strengths and limitations of a program for replication and improvements (Farrell et al., 1996). Through the experience, there appeared to be few, if any, limitations to the implementation of the program. TPT appeared to be financially feasible and went smoothly as indicated by

the desire to keep the program in existence at the schools. It is possible that school personnel were not transparent about obstacles, but at the time of this publication, TPT continues to provide their sports programming for an even greater number of schools and have expanded to include the middle school level as well. It should also be noted that more resources may need to be used in school settings where service learning opportunities are not required, limiting generalizability and replicability.

The main limitation of the quantitative data was the lack of a control group. Clearly, factors such as maturation and growth in thinking and understanding may relate to both positive and negative (attrition, dissatisfaction) outcomes of the peer coaches. Second, the lack of a single standardized questionnaire and thus the need for a nonstandardized questionnaire to measure the full impact of the program limits the interpretation, although subscales of extant questionnaires were used for components and thus provided insight into potential gains. Thus, the data presented should be considered as promising pilot data. Further, given the ceiling of responses on the athlete questionnaire, clearly a more discriminating methodology is needed to understand satisfaction as well as whether any attrition was related to satisfaction. A research project that addresses the positive changes in social development for the athletes is now underway using an observational outcome measure of social communication skills (Grzadzinski et al., 2016). Another future goal would be to conduct a study with a control group of neurotypical adolescents who are not involved in the program to examine the constructs of perspective taking, instructional responsibility and skill development, and self-efficacy rather than self-esteem given the ceiling on that construct in this population. Finally, these data potentially indicate a need to examine the impact of such a service learning opportunity on students who have less school engagement on such factors as grades, graduation rate, and postsecondary situations.

IMPLICATIONS

Social workers are truly multifaceted in their methods to improve the lives of school students by building relationships, working with multidisciplinary teams, and assisting with program development (Openshaw, 2008). At the case management level, a social worker could link their clients to this resource as either a coach or athlete. At a more

involved level, school social workers could advocate for, develop, and take on the role of program administrator at school sites with relative ease as described in this article. At a truly integrated level, a social worker could potentially embed social-emotional and leadership development through awareness, support, and education groups for the participants. Given the positive participation of the underserved community in this investigation and the potential outreach to students who may not be involved in school activities, this could be a novel environment for social worker engagement.

CONCLUSION

This article described a high school inclusive team-based sports program that involved peer mentoring between student coaches who were from underserved schools and student athletes with disabilities (who qualified for an IEP) that would ordinarily prevent participation in conventional sports programs. The program was a collaborative effort and appeared feasible, and adolescents with disabilities seemed to enjoy their participation. Despite certain limitations, the data suggest that the program offered some underserved neurotypical students a novel way to engage with others who are different. The data also suggest that the neurotypical volunteers benefited through improved perspective taking and responsibility. Descriptively, peer coaches expanded on their satisfaction with their participation and saw positive changes in their athlete. TPT appears to be a viable program that can potentially meet social-emotional goals for underserved students with neurotypical development, and health and social skill goals for students with disabilities. **CS**

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