Implementation fidelity of the Ohio State University’s LiFE Sports curriculum: Adoption in afterschool settings

THESIS

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Abstract

It is important to create effective, interesting, and intentional PYD programming for youth. Effective PYD programming helps to create protective factors and reduce risk factors for youth leading to better outcomes. Specifically, sports-based PYD programs provide unique opportunities for youth to grow. Sports provide relatedness to peers and individual empowerment for youth (Anderson-Butcher, et al., 2011). Many programs are trying to create sports-based PYD programming that keeps youth engaged and has positive, proven results. Thus, numerous programs are adopting curriculum deriving from evidence-based practices. So far, the degree to which they implement these evidence-based practices is unclear. While implementing effective PYD programming is essential to positive youth outcomes, it is equally important to make sure the curriculum is being implemented as intended. This study gives insights into implementation fidelity and its importance to quality programming. Monitoring programs for implementation fidelity is an important aspect of effective programming. Implementation fidelity is important for programs to emphasize because it is difficult to determine whether unsuccessful outcomes reflect a failure of the model or failure to implement the model as intended (Chen, 1990). The purpose of this study was to (1) explore common strengths and barriers to successful implementation of the curriculum and (2) investigate the degree
to which Ohio State University’s LiFE Sports summer camp curriculum was implemented in an afterschool setting. The study used both qualitative interviews as well as quantitative daily session log forms to understand implementation fidelity of OSU’s LiFE Sports curriculum. Staff reported on experiences September through December 2014.
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Fields of Study

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Chapter 1: Introduction

Youth Today

For many American youth, the path to adulthood is a journey filled with risk and uncertainty. There are several indicators of need. Although youth dropout rates have decreased significantly from 12% in 1990 to 7% in 2012 for all youth (U.S. Dept. of Education, 2014), youth of color and/or youth living in poverty continue to drop out of school at high rates. In fact, each year from 1990 to 2012, the status dropout rate was lower for Whites than for African-Americans and Hispanics (U.S. Dept. of Education, 2014). In 2012, Hispanic (13%) and African-American youth (8%) were dropping out at significantly higher rates than White youth (4%) (U.S. Dept. of Education, 2014). Dropout and other negative outcomes result from youth exposure to risks. More specifically, risk factors increase the probability of digression to a more serious state, as they often maintain a problem condition, or increase the likelihood of negative outcomes for youth (Fraser, 2004).

Youth Risk and Protective Factors

Risk factors for youth exist in many environments including the individual, family, peer, school, and community systems (DHHS, 2001; Lipsey & Derzon, 1998;
Example individual risk factors are poor behavioral control, deficits in social cognitive or information-processing, high emotional distress, history of emotional problems, antisocial beliefs and attitudes, exposure to violence, conflict in the family, history of violent victimization, attention deficits, hyperactivity or learning disorders, history of early aggressive behavior, and involvement with drugs, alcohol or tobacco. Family risk factors include authoritarian childrearing attitudes, harsh, lax or inconsistent disciplinary practices, low parental involvement, poor emotional attachment to parents or caregivers, limited parental education and income, parental substance abuse or criminality, poor family functioning, and inadequate monitoring and supervision of children. Peer risk factors include the association with delinquent peers, involvement in gangs, social rejection by peers, lack of involvement in conventional activities, poor academic performance, low commitment to school and school failure. Finally, community risk factors include diminished economic opportunities, high concentrations of poor residents, high level of transiency, high level of family disruption, low levels of community participation, and socially disorganized neighborhoods.

Research has shown that the more risk factors youth are exposed to, the more likely they are to engage in problem behaviors (Catalano, et al., 2002). More specifically, while not all youth who have common risk factors (such as school failure, low economic opportunity, and low neighborhood attachment) experience negative effects; research shows that there is strong correlation to negative outcomes (Hawkins, Catalano, & Miller 1992; Howard & Jenson, 1999). Additionally, risk factors can lead to underdeveloped
social competence skills which in turn can lead to poor outcomes for youth (Anderson-Butcher, Amorose & Iachini, 2012).

Despite their exposure to numerous risk factors, many youth display great resilience due to them having sufficient protective factors, or influences and/or characteristics that nullify youth exposure to risk and/or predict positive outcomes (Fraser, 2004). Just as with risk factors, protective factors exist in multiple environments including the individual, family, peer, school, and community systems (DHHS, 2001; Lipsey & Derzon, 1998; Resnick et al., 2004). Examples of youth protective factors include intolerant attitude toward deviance, high IQ, high grade point average, positive social orientation, religiosity, connectedness to family and/or adults outside the family, ability to discuss problems with parents, perceived high parental expectations about school performance, frequent shared activities with parents, the consistent presence of a parent, involvement in social activities, commitment to school, and involvement in prosocial activities.

In essence, these protective factors, also known as developmental assets, help youth battle the risk factors they are exposed to. Protective factors are both internal and external and help to reduce risk. Entities such as the Search Institute suggest that the more assets youth have, both internal and external, the more likely youth will experience positive outcomes and overcome risk factors that are present in their lives (Search Institute, 2003).

With an abundance of youth lacking protective factors or assets, as well as many exposed to multiple risks, research has begun to explore how social settings can influence
positive development and healthy youth outcomes. As such, it is important for advocates and experts to find ways to incorporate and translate new knowledge and research informed youth development strategies, into public policies and programs (Jenson & Fraser, 2006).

Policies and programs that reduce risk factors, as well as limit risk exposure, are necessary. With the understanding that building protective factors with youth is essential to development, more opportunities for youth to encounter positive learning experiences has been increasingly important for supporting youth living in poverty and/or of color who may be exposed to multiple risk factors and challenges. One way in which youth from diverse backgrounds can experience positive influences is through positive youth development (PYD) programs. PYD programs have a dual purpose, as they aim to provide additional protective factors for youth while simultaneously minimize risk.

**Qualities of Positive Youth Development Programs**

PYD programs are assets in communities that when implemented with research-supported intentionality, can provide both external and internal protective factors for youth, especially among those who are most vulnerable. Approaches and key PYD qualities provide insights into how these types of programs influence youth development.

PYD approaches have emerged relatively recently, stemming from early work in the prevention of problem behaviors. Specifically, prevention approaches began to emerge in the early 1980’s, and emphasized supporting youth before problem behaviors occurred. Prevention strategies changed as early programs were evaluated, particularly as
some approaches failed to show positive impact on youth drug use, pregnancy, sexually transmitted disease, school failure, or delinquent behavior (Snow, Gilchrist & Schinke, 1985; Catalano, Berglund, Ryan, Lonczak & Hawkins, 2002). A key turning point in the field occurred as investigators and service providers began incorporating information from longitudinal studies that identified important predictors of problem behaviors in youth, and inversely predictors of healthy outcomes. Essentially, research found that strategies designed to increase protective factors and decrease risk factors among youth can ultimately prevent problem behaviors and promote better outcomes (Catalano et al., 2002; Eccles & Barber, 1999). The field of PYD has emerged from this research. PYD programs have two main pathways. First, PYD programs focus on increasing protective factors. Second, they aim to decrease risk factors. Ensuring youth have more access to positive development opportunities with dual purpose was essential. PYD programs occur in multiple social settings including schools, community-based organizations, and after school programs.

National youth-serving organizations represent the largest single category of youth development programming for youth. Example programs include the YMCA, YWCA, 4-H, Boy Scouts, Girl Scouts, and Boys and Girls Clubs. The National Collaboration of Youth, an interagency council of the nation’s twenty-five major youth organizations, notes that their members serve approximately 30 million young people annually (Quinn, 1999). The majority of these programs aim to reach early adolescent youth. Although there are several types of PYD programs (i.e. faith-based, sport, career
development, drama, band, volunteer clubs, etc.), PYD experts have identified many common elements across programs.

One common element within many PYD programs is the condition of sport and recreational activities. Implementing PYD that is of high quality, is intentional, and is interesting to youth is important to better results for programs and outcomes for youth. Sports and recreational activities are a strong base for PYD programs, as they keep youth active and interested when implemented with intentionality. Sport also may be used as a medium to teach important social and life skills (Anderson-Butcher et al., 2014). Sport, in fact, can be intentionally designed to enhance athletic competence as another means to promote youth assets and protective factors (Anderson-Butcher, Wade-Mdivanian, Davis, Ruch, & Riley, 2013).

Along with the inclusion of sport and related activities, other common features of quality PYD programs have been described. More specifically, PYD programs are typically holistic in nature, operate from a strengths based approach, and are designed to facilitate skill development that is transferable to multiple contexts. Effective PYD programming has been shown to lead to physical, social, psychological/emotional, and intellectual development (Catalano et al., 2004; Durlak et al., 2007). A common element also often incorporates some type of sport and/or recreational component. Sports-based PYD serves a dual purpose. Core characteristics for successful programs include: caring and supportive relationships, developmentally appropriate structure including high expectations for behavior, positive social norms, opportunities for belonging, physical
and emotional safety, opportunities to build new skills, support for efficacy and
mattering, and integration of family, school, and community (Eccles & Gootman, 2002).

The degree to which PYD programs, and more specifically sports-based PYD
programs are able to implement these effective strategies is unclear. There is a need for
further research to explore which aspects of programming are effective and/or ineffective
(Chalip, 2006). A better understanding of specific mechanisms within a program that
prompt the relationship among participation and healthy outcomes is needed (Anthony,
Alter, & Jenson, 2009).

Questions also remain in relation to sports-based PYD. Even though a growing
body of evidence points to sport as a vehicle for fostering positive developmental
outcomes (Anderson-Butcher et al., 2014), there is a lack of consensus on whether these
skills are transferable to other environments for youth (Riley & Anderson-Butcher,
2012). Sport itself does not translate to positive development. Research shows that
growth depends on complex interactions several contextual and social factors (Holt &
Neely, 2011). It is important to look at how programs have studied outcomes with regard
to the effective implementation of PYD elements and quality factors.

One way PYD programs try to increase quality is through adoption of evidence
based curriculum. There are PYD programs and curriculum available that have been
identified as effective at creating outcomes. Organizations that operate afterschool
programs and other types of PYD programs are adopting these curricula and attempting
to incorporate these elements into their designs in order to improve youth outcomes.
Additionally, it is important to ensure fidelity of curriculum implementation.
This study examines the implementation fidelity of the LiFE Sports model within the afterschool setting. A better understanding of the factors that influence adoption and implementation will help contribute to the knowledge base on how to improve PYD settings, and to maximize their impacts on reducing risk exposure and building protective factors.
Youth need supports in multiple aspects of their lives. PYD programs are one support that helps youth increase protective factors and decrease risk factors. Ensuring PYD programs are interesting, effective, and intentional in creating beneficial learning opportunities is important to positive outcomes. One type of program is sports-based PYD.

**Sports Based Positive Youth Development Programs**

Sports-based PYD programs provide unique opportunities for youth. Sports have been shown to provide relatedness to peers and individual empowerment for youth (Anderson-Butcher, et al., 2011). More specifically, youth can acquire important skills that are transferrable to non-sport settings in a positive manner. Skills important to transfer from sport to real life include the ability to cope with pressure, communication skills, the ability to receive feedback, skill with setting goals, solving problems, and skill for dealing with successes and failures (Papacharisis, Goudas, & Theodarakis, 2005). Additionally, it has been suggested that the sense of school connectedness resulting from sport participation may also support an increase of other prosocial norms and expectations related to youth academic performance (Eccles, Barber, Stone, & Hunt,
Sport settings include recreational games, physical education classes, play-based programs, physical fitness classes, etc. One example is the Teaching Personal and Social Responsibility (TPSR) in sport program (Hellison, 2003) model. The TPSR model is a values-base curriculum that uses fitness, motor skills instruction, sports, games, and other human movement activities as a vehicle for helping youth to be more personally responsible for themselves, as well as more socially and morally responsible for the well-being of others (Hellison, Cutforth, Kallusky, Martinek, Parker, & Stiehl, 2000). Another example is The First Tee program. This program provides life skills education and attempts to expose young people to positive core values that help prepare young people for success in high school, college, and life (Weiss, 2006).

Professionals are beginning to utilize sports-based PYD to address systematic, relational, and individual level risk factors and enhance youth’ inherent protective factors. Sports-based PYD programming has been looked at specifically as being an effective medium for youth because the programs not only provide youth with increased physical and mental health opportunities, but they also gives youth structure and an element of competition (Newman, Wade-Mdivanian, Riley & Anderson-Butcher, 2014). Additionally, sports-based programs provide youth with life skill development. More specifically, sport can serve as a desirable backdrop for teaching life skills to young people because sport is an activity in which skill development is the norm. Sport participation also is widely accepted. Youth are commonly motivated by sport and it provides clear results that reinforce hard work and effort (Gould & Carson, 2008).
Overall, sports-based PYD is still being investigated in terms of whether outcomes are automatic by-products of participation, or if results may be maximized with more targeted, outcomes-driven design strategies (Anderson-Butcher & Fink, 2006). Whether one examines PYD programs, or more specifically, sports-based PYD programs, little is known currently about what mechanisms contribute to positive outcomes for youth (Anderson-Butcher, et al., 2014). It is often unclear which elements of programs serve as protective factors that promote positive outcomes, as compared to what elements may deter growth and development. There is still a gap in the literature and research and further investigation is needed. PYD experts and researchers have recommended that PYD programs offer more intentional programming designed to address risk factors and promote specific targeted protective factors among youth they are serving (Anderson-Butcher, 2002). Further details follow.

**Intentional Programming in Sports-Based PYD**

Youth sports-based PYD programs must be intentional meaning they provide programming that has proven results through research that shows positive outcomes. Programs are not maximizing impact if they simply give youth an area to “hang” to avoid high risk situations. Quality sports-based PYD, or PYD programs in general, should seek to achieve one or more of the following: promote bonding, foster resilience, promote social competence, foster self-efficacy, foster belief in the future, provide recognition for positive behavior, provide opportunities for prosocial involvement, and foster prosocial norms, among others (Catalano et al., 2002). Often sports-based PYD programs,
however, are implemented without much attention to purpose or interest in outcomes (Anderson-Butcher, Midle, Hansford, Fallara & Grotevant, 2004). While mere attendance is extremely positive for program, programs should incorporate certain aspects within their curriculum if they want to achieve longevity, support, and retention.

Research has identified several key elements which sports-based PYD programs, and PYD programs generally, should incorporate. Core characteristics for successful programs include: caring and supportive relationships, developmentally appropriate structure and high expectations for behavior, positive social norms, opportunities for belonging, physical and emotional safety, opportunities to build new skills, support for efficacy and mattering, and integration of family, school, and community (Eccles & Gootman, 2002). Providing meaningful opportunities for participation, connection, and contribution to the greater group enhances youth resilience (Benard, 1991; Ginsberg, 2006), as well as supports positive growth and development (Eccles and Gootman, 2002; Anderson-Butcher & Conroy, 2002).

In addition to providing programs that help build resiliency and prosocial competencies, the program structures themselves are important for creating positive outcomes among youth participants. Some important factors that are correlated with quality sports-based PYD programming include duration and frequency, structured curriculum, assurance of implementation fidelity, and detailed measurement of both short and long-term outcomes (Nation et al., 2000). Additionally, consistency with these factors is necessary for programs because when youth participate in programs that are
effective, predictable, and intentional they are more likely to thrive in that environment (Catalano et al., 2002).

In the end, effective PYD programming, including sports-based ones, have to be intentional. Quality programs increase protective factors, decrease potential risk factors, and contribute to good outcomes which promote positive growth and enhancing resiliency. Based on research, there are existing measures of what makes programs beneficial to youth. It depends on how programs are orchestrated and how much fidelity they exhibit in their implementation of proven core characteristics that may determine if they are successful or not (Dusenbury, Brannigan, Falco, & Hansen, 2003).

There are numerous challenges that make quality sports-based PYD, and PYD programs overall, difficult to implement. Funding issues, among other factors, lead to great uncertainty and inconsistent presence in communities (Halpern, 1999). Essentially, it is extremely difficult to secure funding for programs for multiple years and from multiple revenue sources. This is especially the case when programs struggle to obtain and show proven results. While this may be the case because of lack of program oversight, it is often a byproduct of the nature of running program with inconsistent attendance, staffing, and space considerations that are common challenges in programs (Halpern, 1999). Additional challenges that limit quality programming include lack of accessibility, requirements related to licensing for programs, and high turnover rates (Anderson-Butcher, 2005). Individualizing programs to meet the needs of specific youth is also a challenge. As youth age, their participation in developmental programs tends to decrease because, in part, they prefer more unstructured, less outcome-oriented activities.
such as pick-up games and game room activities (Anderson-Butcher, Newsome & Ferrari, 2003). Still other barriers exist.

Additionally, programs have to take into account numerous factors when implementing programs. Getting and keeping youth involved starts with a few major questions. For instance: (1) Are opportunities available and accessible? (2) Are the opportunities of interest and relevant to youth? (3) How do the programs build competence? (4) How do the programs build autonomy? And (5) How are youth’ needs for relatedness satisfied by programming? (Anderson-Butcher, 2005). These questions are essential understanding how to create effective sports-based PYD programs.

Given these multiple barriers, organizations operating sports-based PYD programs often experience significant challenges when attempting to implement quality programming for youth. Many sports-based PYD programs, and PYD programs in general, have to deal with inconsistencies and barriers that prohibit them from being able to provide constant quality programming for youth, either by their fault, inevitable circumstantial issues, or a combination of the two. When sports-based PYD programs provide quality, consistent programming with proven curriculum implemented with fidelity by dedicated staff, they have a greater chance of being successful at promoting for youth outcomes.

**Implementation Fidelity Importance**

One way PYD programs improve programming is through adoption of curriculum that is researched and intentional. While some programs are better at implementing
curriculum than others, at the variable of implementation fidelity is an essential aspect that requires further attention. Implementation fidelity is described as the extent to which delivery of an intervention adheres to the protocol or program model originally developed. Implementation fidelity is one of the most important topics in the positive youth development field. Implementation fidelity is vital because without documentation or measurement of a program’s adherence to an intended model, it is difficult to determine whether unsuccessful outcomes reflect a failure of the model or failure to implement the model as intended (Chen, 1990).

Implementation fidelity has repeatedly been shown to be related to effectiveness of programming (Catalano et al., 2002). No matter how well a program is designed based on proven research, it will not be as effective as intended if the curriculum is not implemented with fidelity. It is important to avoid evaluating a program for its outcomes when that program has not been implemented properly (Hoefer, 1994). Expecting the program to achieve positive impact after it has been only partially, or poorly implemented, is overly optimistic. Verifying that an intervention has been implemented as designed is crucial to evaluating the effectiveness of a macro practice intervention (Hoefer & Jordan, 2008). A certain degree of variance in terms of instruction style or barriers to facilitation is expected. Program evaluation is directly affected by fidelity of implementation. Total fidelity is not necessarily expected, yet it cannot be neglect as part of comprehensive program evaluation. Neglecting program monitoring for fidelity can produce inaccurate data that does not reflect the true effectiveness, or ineffectiveness of programming.
There are many challenges to implementing curricula with fidelity. Factors such as time constraints, limited staffing, or general lack of resources to investigate fidelity of programming are major issues that many programs are forced to combat (Dusenbury, et al., 2003). Traditional sources of data concerning fidelity include direct observations, teachers’ self-reports, and youth’ reports of teachers’ implementation. Reports conclude that while data from teachers appear to be more comprehensive, data from trained observers tend to have higher validity (Dusenbury, et al., 2003). The more methods utilized to measure fidelity the better, but this is not a realistic possibility for many programs. Many PYD programs rely on extremely tight budgets, thus the focus is often on simply supplying programming for youth. Monitoring and measuring the fidelity of programming is often an unrealistic expectation. It must also be noted that no matter the method of implementation fidelity assessment, the human factor is in play. Variance in people’s perception of how curriculum is taught and to what effectiveness is inevitable. Limiting the variance through varying methods of assessment strategies is the key to better implementation fidelity, and thus better program delivery to youth. Given the challenges that programs face, combined with the importance of intentional programming and fidelity, it is important to investigate various factors that promote adoption and implementation of effective practices with PYD programs.

Sports-based PYD, and PYD in general, need quality, and need to implement key features and characteristics of good programs. Also, they need to focus on reducing risk and promoting protection. To do all this is extremely challenging, and programs face multiple barriers. The degree to which programs implement curriculum with fidelity
matters for promoting positive outcomes. The following looks at different aspects promoting fidelity.

**Factors That Promote Fidelity**

Dane and Schneider’s (1998) offer one framework that distills the various factors that promote fidelity, ones that are comprehensive and well supported in the literature. Specifically, they describe five dimensions of implementation fidelity, including (1) adherence to the program, (2) dose (the amount of the program delivered), (3) quality of program delivery, (4) participant responsiveness and (5) program differentiation (whether critical features that distinguish the program are present). Dane and Schneider also strongly recommend that fidelity be examined across all five dimensions in order to provide a comprehensive picture of program integrity. Each of these dimensions is described more comprehensively in the following.

*Adherence*

Adherence is defined as the extent to which implementation of particular activities and methods are consistent with the way the program is written (Dusenbury et al., 2003). Adherence is essential for fidelity because it shows how closely the curriculum is followed. If curriculum is research driven, and has been proven to produce desired results when administered correctly, it is vital to monitor implementation adherence. If adherence is not emphasized, the outcomes will be difficult to measure because it may be unknown if results are a product of the delivered curriculum or if there
are other contributing factors. For example, in LiFE Sports programming, if a basketball facilitator followed the curriculum for a lesson on the skill of dribbling, it would be important to follow (adhere) the breakdown of drills provided by the curriculum.

**Dosage**

Dosage is defined as the amount of program content received by participants (Dusenbury et al., 2003). While dosage is often assumed to be sufficiently covered when programs are implemented by researchers themselves, it is not typically the case with non-research personnel. Measuring dosage may provide important information about fidelity. If a LiFE Sports facilitator, for example, is able to implement their sports curriculum for as much of the allotted session time they are administering good dosage to the youth.

**Quality of Delivery**

Quality of delivery is used to assess the extent to which a provider approaches a theoretical ideal in terms of implementing program content. The quality of interaction and the extent to which interactive activities focus attention on desired elements are thus important to measure (Dusenbury et al., 2003). Quality can be a difficult aspect to measure. It is important to investigate not only how much or how closely curriculum is implemented, but if the instructor is delivering it with competence to the subjects. For instance, if a LiFE Sports recreation leader is engaged with the participants in volleyball lesson by helping them learn skills throughout the session they would be delivering the curriculum with quality.
*Participant Responsiveness*

Participant responsiveness is defined as the extent to which participants are engaged in, as well as involved in, the activities and content of the program (Dusenbury et al., 2003). The four points of emphasis are if: 1) participants felt their opinions were respected, (2) they participated in class discussions, (3) they discussed the program with their parents and (4) they would recommend the program to others (Hansen, 1996). For instance, if youth are responding to a dance lesson on certain basic moves and are interested and participating it shows good responsiveness. It is vital for fidelity that youth are engaged and being utilized in the learning experience.

*Program Differentiation*

Program differentiation aims to identify unique features of different components or programs so that these components or programs can be reliably differentiated from one another (Dusenbury et al., 2003). Researchers are starting to understanding the importance of moving beyond the “black box approach” to prevention evaluations to an approach which attempts to explain the specific ways in which outcomes were achieved (Harachi, Abbott, Catalano, Haggerty & Fleming, 1999). The LiFE Sports curriculum is an illustration of a curriculum that stands out from many other PYD programs because it intentionally focuses on sport and social skill development. Differentiation helps researchers further understand how programs stand out from one another and attention to fidelity helps to make that more clear.
These five dimensions of implementation fidelity are important for PYD programs to examine to ensure they provide more impactful programming to address risk and promote protection for youth. In addition, when PYD programs promote fidelity of their content they make it a program that is more predictable keeps youth participating. The more programs display fidelity with their intentional curriculum, the more likely they are to get to better outcomes for their youth. When programs like LiFE Sports or The First Tee create research informed curriculum it has proven positive outcomes. Thus, when the curriculum is implemented with fidelity, it is expected to provide positive results compared to a program that does not have the same research base.

Given that implementation fidelity is vital in sports-based PYD settings, programs should to continually investigate and monitor the five factors that promote fidelity (dosage, adherence, quality of programming, participant responsiveness, and program differentiation). Quality of outcomes and thus the ability to address risk and promote protective factors is dependent on fidelity of proven curriculum for programs. While it is known that many challenges face programs yet little is known about what mechanisms assist with adoption of good curriculum and programs. A better understanding of these five dimensions to implementation fidelity in sports-based PYD programs, and PYD programs overall, can provide insights to how to improve programming for youth, thus teaching them valuable skills and engaging them in prosocial activities to promote growth. Questions remain and need further investigation to enhance this process.
**Present Study**

Given the importance of implementation fidelity in PYD, this study examines implementation fidelity in one sports-based PYD setting. There are gaps that need to be examined in sports-based PYD. Youth experience major concerns such as dropout and lack of developmental opportunities. Youth experience many risk factors and need to build protective factors. PYD settings, including ones using sport, are designed to do build these protective factors for youth.

Quality features of these programs are known. The degree to which they implement these features is unclear, and there are many barriers to implementation. One strategy programs use is adopting curriculum to use. When programs adopt a curriculum, it may improve quality of program, which then in turn will help with outcomes. This study looks to understand the challenges to adoption.

Research shows that PYD contributes to healthy outcomes; however, the mechanisms under which this happens are unclear (Anthony, Alter, & Jenson, 2009). For instance, Chalip (2006) identified the need for research to examine the characteristics of interventions that are effective and/or ineffective. Others point to the need for further research investigating the mechanisms that exist within a program that actually serve as the agents of change (Anthony, Alter, & Jenson, 2009; Eccles, Barber, Stone, & Hunt, 2003; Riley & Anderson-Butcher, 2012). A way to improve studying the gaps in sports-based PYD is to adopt a proven curriculum to improve quality of programming. Once programs adopt an established curriculum, measuring implementation fidelity is important to understand accountability of staff and what is working and what can be
improved. One way programs attempt to improve quality and increase protective factors and decrease risk factors is through the adoption of evidence-based programs. It is important for programs to adopt curricula that has is research-informed and has a history of proven positive outcomes. Additionally, it is important for programs to be implemented with fidelity.

Based on gaps indicated in the area of program implementation fidelity, there are two specific goals of the study:

1. To explore factors associated with common strengths and barriers to the implementation of the sports-based curriculum within an afterschool program.

2. To investigate to what degree a sports-based curriculum is implemented with fidelity in an afterschool setting.

These two goals are important to investigate they help to inform how the LiFE Sports curriculum is implemented in an afterschool setting. The study gives understanding to the challenges or successes to implementation helps get a contextual understanding of the adoption.
Chapter 3: Methods

The study included two aspects of investigation. The first is a quantitative study that explored the degree to which a sports-based program, LiFE Sports, is implemented with fidelity over a three month period as perceived by an afterschool staff. The second aspect of the study was a qualitative investigation that penetrated further into implementation fidelity through the use of staff interviews. Together, the two methods provided insight into common challenges and successes of the LiFE Sports curriculum’s adaption to the afterschool model.

Context

LiFE Sports

LiFE Sports is a sports-based PYD program housed at The Ohio State University in Columbus, Ohio. LiFE Sports annually serves between 600-700 urban youth ages 9-18. The majority of participants are African-American, live at or below the federal poverty level, and live in urban areas of Columbus (Anderson-Butcher, Wade-Mdivanian, Paluta, Lowers, & Davis, 2013). The LiFE Sports program is comprised of a 19 day (6.5 hours/day) summer camp, and includes 6 follow-up sports clinics offered throughout the academic year. LiFE Sports was developed for the purpose of reaching the needs of youth
from disadvantaged backgrounds by fostering social and athletic competence through intentional, structured programming involving sport, fitness, and educational activities (Anderson-Butcher, Riley, Iachini, Wade-Mdivanian, & Davis, 2011). Specifically, LiFE Sports does this by fostering social and athletic competence through intentional, structured programming through fitness, sport, and educational activities. Specific skills targeted in LiFE Sports Camp and designed to promote overall social competence include Self-control, Effort, Teamwork, and Social Responsibility (S.E.T.S), key components of overall social competence (Anderson et al., 2014). Youth participate in basketball, Chalk Talk, volleyball, football, softball, soccer, and dance throughout the duration of camp. The campers participate as teams at the LiFE Sports Olympics, a two-day culminating event where youth have the opportunity to practice and be rewarded for the demonstration of the social and athletic skills developed throughout camp. Additionally, campers are exposed to higher education opportunities, and free dental and health screenings. The camp is a highly sought after program in Columbus that is leading the way in targeted, research-informed sports-based PYD.

Recently, the LiFE Sports model has been adopted by a youth development organization in Columbus Ohio. Leaders in this PYD organization are interested in implementing the evidence-based LIFE Sports curriculum in their after school program. As such, this setting affords good opportunity to study implementation fidelity issues in PYD, as well as examine more specifically the specific mechanisms at work that impact the degree to which programs are effective. More details follow related to the organization adopting LiFE Sports.
The afterschool program of study involves two middle schools grades 6-8 in Columbus, Ohio. There are three program pillars from which the program bases its values: academics, enrichment, and health and fitness. The pillars and cornerstones work in concert with one another to bring about meaningful program benefits. Program benefits are physical, socio-emotional, and academic outcomes intended to promote optimal youth development (Williams & Hinojosa, 2011). The programs operate four days per week (Monday-Thursday) running from 2:30 p.m. until around 5:00 p.m. on site of the each respective school. Each program serves between 60-80 students daily. The youth receive a meal and have time to work on homework with staff support. More details follow in relation to the LiFE Sports curriculum.

Two specific afterschool program sites operated by this organization were examined for the study. Typically, the youth received LiFE Sports curriculum instruction in one session each day (approximately 35-45 minutes in length). During the first semester of the year youth received instruction in Chalk Talk, basketball, dance, and volleyball (one each day of the week). The program began immediately following the last class and was considered part of the school day after the general education instruction. The program was examined for a period of three months in the fall semester of 2014.

Qualitative Interviews with Staff

Sample

The study was comprised of a total of eight (n=8) staff from the two school-based afterschool programs. Four interviews were conducted at each site, respectively. The
eight staff reported basic demographic information including age, sex, ethnic group, length of employment, whether they had previous LiFE Sports experience, and whether they were part or full time. The average age of staff participants was 22.75. There were five males and three females as part of the study, seven identified as White/Caucasian, and one identified as Black/African American. Additionally, the average length of employment was five months, none had previous experience with LiFE Sports, and all were part-time workers. There was great fluctuation in terms of number of staff employed throughout the investigation, but at the conclusion of the study, eight of the sixteen staff participated. Staff with a minimum of one month of experience were selected to take part in the study.

Procedure

At a staff meeting, program staff were informed of the study and asked to participate. Staff that provided consent were contacted by the researcher to coordinate an interview. Interviews were set up in a private area in each school. Before beginning the interview, they were provided with an overview of the study and also provided verbal assent. Each interview was one on one in a classroom setting and approximately thirty minutes in length. First, consent was obtained in writing as well as through verbal reiteration to fully explain the parameters of the interview. Second, the researcher informed the participant that the interviews would be recorded with audio recording technology and transcribed verbatim by the researcher. The recordings were erased after transcription. Interviews took place in January and early February 2015, approximately
midway through the afterschool program. This timeframe allowed for the staff to settle into their programming so they were able to provide informed feedback about the curriculum’s implementation. Interviews took approximately 20-30 minutes to complete.

*Interview Guide*

The interview guide was comprised of a directed set of questions designed to elicit participants’ insights related to implementation of the LiFE Sports curriculum at After School All Stars. There were initial direct sets of questions aligned with the five aspects of fidelity: dosage, adherence, quality of delivery, youth responsiveness, and differentiation (Dane & Schneider, 1998). These five categories helped reveal which aspects of implementation fidelity were strong or which aspects were lacking in the curriculum. Additionally, they were used shed further light onto success and or challenges in certain aspects of implementation for the staff. Example questions included, “What affects your ability to teach the LiFE Sports curriculum?” and “Overall, do you feel the youth are engaged in the LiFE Sports curriculum?” The questions were used to further explore the quantitative data provided by the staff in daily session logs. Probing questions were designed to delve deeper into the initial questions related to the different aspects of fidelity. If certain answers were elicited from respondents it would cue the interviewer to ask certain probing questions. (See Appendix 2 for Interview Guide)
Analysis

Once interviews were transcribed, a content analysis of themes was done to examine themes across LiFE Sports implementation generally and specifically within the five areas of implementation fidelity (dosage, adherence, youth responsiveness quality of programming, and program differentiation). Answers were analyzed to provide detailed insight into which aspects of the LiFE Sports curriculum had stronger fidelity and which were difficult to implement with fidelity. The qualitative aspect of the study was important to get more in depth understanding from the workers. The researcher utilized purposive sampling to select interviewees that would provide needed information (Padgett, 2005).

Parts of the interview that represented similar concepts were given the same code name. If similar dialogue was delivered from various staff then it was noted as such. Raw data that represented unique answers by the staff were labeled as unique outcomes. When staff identified certain aspects of the program as mechanisms underlying LiFE Sports curriculum implementation fidelity, the researcher coded the raw data as a mechanism. Data were coded as a mechanism if the quote was in response to the interview question, “what challenges do you face in attempting to follow the LiFE Sports curriculum?” Data were also coded as a mechanism if a staff member said because of certain factors, a specific outcome occurred. For example, if a staff member said “because the youth were having behavior issues, it was challenging to teach the intended curriculum” “because the youth were having behavior issues” was coded as a mechanism.
While the researcher coded the data, memos were kept to provide a written record of the responses. The memos were used to identify dimensions and properties of codes and to connect mechanisms with the level of fidelity in the curriculum’s implementation. As in the example used above, if staff said “because the youth were having behavior issues, it was challenging to teach the intended curriculum” the mechanism “because of behavior issues” was connected to staff feeling “challenged to teach the curriculum.” Memos were also used to keep a record of commonalities that were noticed by the researcher as they were working with the data as well as methodological concerns or questions (Corbin & Strauss, 2008).

Focused coding and were used to analyze the data in this study. First, focused coding was used to narrow down open codes representing fidelity of implementation by combining codes with similar properties and dimensions. Some codes, or phrases that showed similarities were identified. During this process, the codes identified during open coding were organized into different themes, with some more common than others (Corbin & Strauss, 2008; Padgett, 2008). The processes of focused coding were then completed to bring out commonalities in answers. Codes were organized into different, themes. The memos helped to connect mechanisms with the fidelity with which the curriculum was implemented in the after school program. In addition, both direct and indirect impacts were connected to mechanisms, as staff occasionally said that a mechanism led to a certain outcome (direct impact), which then led to another outcome (indirect impact). For example, a staff member could say that there was not enough time to teach the intended curriculum, which led to the kids not getting the social competence
skill for the day (direct impact) which in turn made it so the youth were not prepared with the information to do the following days’ curriculum (indirect impact).

Peer debriefing and support also were used to decrease the possibility of researcher bias. The colleague provided feedback and guidance in relation to the analysis process. In addition to this peer debriefing process, a reliability check was performed by a peer reviewer. The researcher and peer reviewer met to discuss the analysis and reach a consensus. Finally, a member check was used to verify the credibility of the interviews. The researcher took the results of the analysis back to a staff member to get their feedback on how the results represent the voice of the respondents (Barker & Pistrang, 2005).

Quantitative Methods Examining Implementation Fidelity

Sample

The sample consisted of staff at both sites implementing LiFE Sports curriculum on a daily basis. At each site, staff (n=x) affiliated with the program’s implementation of daily curriculum was asked to participate in the study. A total of eleven staff total filled out daily session logs during the three month period. Of those eleven, three of the staff left the program part way through the study. As a result, eight staff reported daily session logs throughout the duration of the study. There were a total of 114 logs submitted. Of the 114 logs 28 were for basketball (24.6%), 20 for volleyball (17.5%), 37 (32.5%) for Chalk Talk, and 29 (25.4%) for Dance. There were a possible total of around 357 sessions in which logs could have been filled out by staff making the response rate
around 32%. The response rate was relatively lower than anticipated, yet understandable considering challenges to collection procedures.

Procedure

Staff at both afterschool program sites where LiFE Sports was being adopted were asked to part of the data collection. Those interested signed a consent form stating they agreed to participate. All facilitators who provided consent were trained on how to complete the daily session logs. They completed session logs each day of implementation. Feedback was given during initial implementation to ensure the staff completed the logs correctly. Then the forms were collected weekly by the researcher from September 29th through the semester break on December 18th.

Measurement

Session log forms originally used within the LiFE Sports program were the tool used to study implementation fidelity. Initially, these forms did not have specific connections to the five aspects of Dane and Schneider’s (1998) keys to implementation fidelity. As such, the session log form was revised, with feedback, to coordinate aspects of the session log to those elements. Session log forms by participant were compared for consistency and no major differences in how staff reported on the session log forms. Connecting questions about fidelity to the aspects of dosage, adherence, quality of delivery, responsiveness, and differentiation helped to inform details of where the implementation was strong and which areas proved challenging.
The final session log form was comprised of seven questions. The log contained areas where contextual information could be gathered such as the date, sport session administered, length of session, and amount of time spent on actual curriculum. The session logs had the intention of providing consistent daily feedback to understand how staff felt they implemented the daily sessions. Each of the questions had a specific aim to provide information on at least one of the five aspects of implementation fidelity outlined by Dane and Schneider (1998). Those aspects were 1) dosage 2) adherence 3) participant responsiveness 4) quality of delivery 5) program differentiation. One example from the session log was “I think the youth learned the intended lesson today.” Each statement was answered on a six point Likert type scale ranging from 1 indicating “Not at all” and 10 indicating “Completely”. As a result of daily session logs collected from the staff, it made it possible to learn trends within sports specifically, as well as general themes across implementation of all lessons. (See Appendix 1 for session log tool)

Analysis

The data from the daily session logs were analyzed using SPSS. The degree to which the LiFE Sports curriculum was implemented across the five theme areas was explored using descriptive analysis. Means and standard deviations provided insight in relation to overall implementation fidelity, as well as implementation across all sports. For instance, logs provided insight into which days of the curriculum displayed more implementation fidelity (higher number averages) when compared to others within all five aspects of implementation fidelity. Also, percent of agreement was investigated
based on responses. Themes developed to gauge patterns on the programming and showed possible trends over time. Each day in the curriculum had a specific lesson on a sport or education lesson (Chalk Talk). If staff reported trends in regards to challenges or successes with certain days of the curriculum, it provided useful information about the curriculum implementation and patterns that developed.
Chapter 4: Results

Results were organized into two sections. The first examined the results from the qualitative interviews in order to understand facilitators and barriers to implementation fidelity. The second section examined the quantitative daily session logs to understand to what degree the LiFE Sports curriculum was implemented with fidelity.

Qualitative Results Study Outline

Fourteen major themes emerged from the data. Numerous subthemes emerged within those fourteen major themes that provide more details related to the implementation fidelity of the LiFE Sports curriculum the afterschool program. The following lists the major themes discussed in the qualitative interviews and gives context to patterns observed. Additionally, direct quotes are included to give further insight into themes. As themes emerged from the interviews, responses were categorized into facilitators and barriers of successful implementation of the LiFE Sports curriculum. There were four themes that were facilitators and ten themes that were barriers. The themes are organized accordingly as follows.
Facilitators

Curriculum was easy to follow for basic skill development. A total of five staff commented about strengths in relationship to how the curriculum was written, especially in relation to its focus on skill development. Specifically, staff reported that the curriculum’s guidelines on basic skill development (such as on dribbling and passing in basketball or hitting and setting in volleyball) was easy to follow. They also reported that the youth were responsive to their instruction. Overall these staff felt the curriculum provided a good base for the youth to learn the skills associated with each sport. The common thread was that the staff believed the first half of the curriculum was great for the youth’ development of skills as it provided a wide range of necessary skills for them to learn the sport basics. For instance, one participant stated, “Toward the beginning I stuck to the curriculum a lot and it allowed the youth to really understand the basic skills.” Another staff member reported, “Generally, we did start using the curriculum pretty straightforward for the first part of lessons with beginning skills.” Essentially, much of the staff expressed strength in the curriculum’s instruction on sport basics, and they reported that the curriculum was adaptable to a majority of youth. They liked how the curriculum provided an adequate breakdown of how to perform certain skills required for multiple sports.

Active participation was a predictor for success in youth learning intended message. Four of eight staff mentioned in some way how the more the youth were learning as they were physically participating in the drills, the more responsive youth were, and the better the youth received intended messages. Staff referenced Chalk Talk in
particular by two staff members. These staff mentioned that Chalk Talk was more effective when the youth were moving and learning as compared to sitting in a classroom. One participant stated, “Strong engagement is seen when it’s more active and less just sitting and thinking. More kinesthetic learning rather than just visual learning or talking.” Another commented that, “If they were standing up and moving they were engaged with basketball and volleyball.” As a result, staff felt that when youth were physically engaged, they were more mentally engaged as well.

**Staff felt that without LiFE Sports’ curriculum, the program would have little structure from which to base their instruction.** Six of the eight staff mentioned, in some form, that without the LiFE Sports curriculum they would have no basic structure to their daily lessons with the youth. Three of those staff said that the structure was the best part of the curriculum because they did not have to create their own activities. As such, they reported that they could “focus on improving their facilitating skills and preparing lessons instead.” As one stated, “It (LiFE Sports) gives me a curriculum to follow. It helps me stay organized in a way.” Another stated, “It’s very structured. It gives a good breakdown of what exactly I am supposed to do, how I am supposed to do it, and what they are supposed to be learning.” A few of the staff (two) mentioned how “chaotic” it would be without the curriculum to guide lessons. One staff commented, “It was good (to have the curriculum) so it wasn’t just chaos all day.” Similarly, another staff said, “The day definitely wouldn’t be as structured, it would be lot more chaotic.” Overall, a major reported strength of the LIFE Sports curriculum was that it brought structure to each daily lesson that the staff felt prepared to use, and provide instruction with quality.
The majority of staff reported that sport development combined with social skill building was the most unique factor of the curriculum that fostered implementation fidelity. Six of the interview participants stated that they felt the LiFE Sports curriculum was successfully implemented in a unique way as a result of its designed concurrent social and sport skill development focus. Much of the staff pointed to the fact that the curriculum’s focus on both the sport skill and social development helped the youth learn the material in a new way that was different from other programs. Staff indicated that the LiFE Sports curriculum helped them become better, more focused facilitators. One staff said, “I love the social aspects of the S.E.T.S. and trying to teach social lessons through physical activity.” Similarly, another stated, “I like that it brings in the concept of sports and life skills. It is great that kids are not only able to learn life skills, but also work on sports that they might not otherwise get a chance to play.” The staff strongly endorsed the curriculum’s unique focus on simultaneous social and sport skill development.

Barriers

After basic skills were implemented, staff struggled to keep youth engaged. Of the five staff who discussed the strength of the curriculum for building basic sport skills in basketball and volleyball, four of those same staff commented that once they worked through the curriculum and were beyond basic skill development, they reported feeling the curriculum moved too slowly for many youth. Four of the staff felt as if the curriculum was limiting many of the youth in some capacity, especially youth with previous experience with a certain sports, from implementing the skills in a competitive
format. They said some youth did not have strong responsiveness to certain aspects of the curriculum. As an example, some boys who had played organized basketball felt as though the skills being taught were below their skill level. Thus, the staff had trouble with some youth engaging them. As one participant said, “I found it was harder and harder for the kids to want to stick to it (curriculum) so we started playing actual games even though I know it wasn’t part of the curriculum.” A similar sentiment was described by another staff member. “The passing and shooting drills eventually got old and I slacked off a bit and we just played games tournament style incorporating those passing and shooting drills.” Overall, staff reported difficulty with youths’ varying levels of skill in each sport. While the basic skills were helpful for many with less experience, it was reported that many of the youth were ready to move into more advanced levels of sport development. The curriculum was not necessarily designed to allow for this differentiation. Essentially, for some participants the curriculum did not move at an adequate pace to keep youth engaged.

Staff felt as though more thorough trainings, as well as trainings throughout the school year would be helpful to better their facilitation skills. Three of the staff members mentioned in some variation that an adjustment to the training on the LiFE Sports curriculum would be helpful to their quality of curriculum delivery. Specifically, these three mentioned an increase in training in terms of more examples of activities across more sports would be helpful for them. Staff reported that they found the trainings that were provided to be helpful to their facilitator development, however, they also reported they wanted more trainings. The reasons and strategies behind the desire for
more varied from wanting more days of training focused on one curriculum to (so they could see the progression) to wanting more supplemental trainings throughout the school year to have experienced coaches from each sport teach best practices. One staff member said, “It might be asking for a lot but for example, five lessons from one curriculum would help. So let’s say you do five lessons on volleyball to get the general idea for how it goes for half of the curriculum would help drastically I think.” In the end, ongoing professional development and additional trainings were suggested by staff to improve their quality of delivery.

*There was concern over not having sufficient space to implement curriculum effectively.* Seven of eight staff highlighted space as a major factor contributing to difficulty in implementing the LiFE Sports curriculum. The staff discussed that their afterschool program operates in small facilities. The gyms that they use to run programs are not large enough to implement the curriculum fully and made it a challenge to adhere to the intended curriculum. Additionally, they mentioned how often multiple groups used the space simultaneously. For these staff, the facility constraints caused additional barriers because the youth were distracted, they reported not being able to frame the daily lessons. They were especially concerned that there was no general space to set up drills according to curriculum standards. Essentially, issues with space were a common concern of the staff in relation to implementation fidelity. For example, one staff mentioned, “The biggest issue was space. We had to share the gym with three teams…paying attention to just made it tough to start an activity. That distraction was very big for the youth.” In
essence, the staff felt they were unable to implement aspects of the curriculum in which large space was needed.

*Youth behavior was a large hurdle to getting through daily lessons.* Five of the eight interviewees mentioned maladaptive behavior or youth responsiveness in the lessons as one of the largest factors in the youth. This involved both those engaged, and those creating the distractions learning the intended curriculum. Both the distracters and others typically attentive and engaged reported being effected by behavioral distractions. Some staff said that a “select few” youth would distract entire groups from learning or allowing the facilitator to get the lesson taught. It should be noted that two staff mentioned there were often situations in which youth simply wanted to do their homework instead of engaging in the lesson. One participant said, “Behavior is the biggest one (issue). They would rather just talk with their friends rather than participate.” Three staff also mentioned the nature and structure of the charter school schedule being a contributing factor to behavior and, in turn, not allowing them to implement curriculum. One staff mentioned how the youth did not leave their homeroom all day, and that the school teachers would rotate to them. As a result, some of the staff reported that they had trouble controlling youth as they were releasing energy and causing group distraction. One participant claimed, “They are sitting around all day and are excited to get up and move and sometimes are a little too riled up and it takes longer to get them settled down and ready to go.” When youth acted out it decreased overall positive youth responsiveness. To summarize, negative behavior made it very challenging for much of the staff to remain on task and follow the curriculum as intended.
Dance was a struggle to implement with fidelity. Three interviewees had association with facilitating dance. These staff mentioned how the curriculum’s strength was the fact that by nature dance is very active, but that dance was a challenge because many youth were self-conscious around their peers and responded differently to the experience. Additionally, the curriculum structure of dance did not lend itself to a fifteen day implementation, thus making it so staff had to create their own variations after the first five days. One staff said specifically, “The biggest challenge with dance is the youth see each other every day and they are afraid to get made fun of. With the little time we had we were not able to create an emotionally safe environment for them.” The dance curriculum is currently designed to be five days in length. The staff was attempting to extend those days over fifteen days, but there were major difficulties in engagement as it was not as structured for the full fifteen days as other sports were.

There was insufficient time during each session to fully implement daily lessons. All eight staff members interviewed discussed, in some form, that the amount of time they had during the each session was not long enough to implement proper dosage of curriculum. One participant said, for example, “Really it’s meant for a summer program and since we are trying to modify it into an after school program, time constraints were the biggest roadblock we ran into.” The LiFE Sports curriculum is design to have one hour to implement each lesson. None of the staff stated that they had more than forty-five minutes to implement lessons. They reported consistently they did not have adequate time to implement daily lessons. One staff said, “I do not think there is enough time. I think they got the gist of it but without having the time to introduce it and
close it they didn’t hear me telling them what they needed to learn.” In the end, inadequate dosage was reported as a barrier to implementation of the curriculum with fidelity.

**Class size was a major barrier to implementing the curriculum.** Five of the eight staff mentioned that they felt their class size was a factor affecting implementation. While it varied throughout the semester, three staff commented having up to thirty youth per lesson. Staff perceived that the large number deterred them from giving individual instruction to youth. One staff member highlighted this. “When you have thirty kids there is really no room to work inside or give certain kids instructions.” Another staff stated, “We had about thirty youth per session, If you have thirty youth in one class and thirty in another in the same gym it was tough to have good quality.” In terms of behavior issues resulting from class size, a third staff member said, “Sometimes it’s just me and thirty kids. Sometimes I can’t interact with them in the time and it gets very loud, so that makes it difficult.” The staff mentioned that youth responsiveness often decreased when numbers were too high because of the facilitator to youth ratio was too large. Class size was a major reported deterrent to quality of implementation.

**Youth entering programming part of the way through the curriculum made it difficult for facilitators.** Three of the staff mentioned struggles to adhere the curriculum in accordance with LiFE Sports’ intention when either (1) new youth entered the program or (2) youth being transferred from one group to another in the middle of the fifteen day curriculum. Staff felt as though they could not catch the newcomers up with others while teaching the existing group new lessons. One participant illustrated this concern saying,
“It makes it difficult when kids just switch classes. It’s hard to know which lessons kids have learned and they get frustrated if we already discussed it and they do not want to discuss it over and over.” The staff mentioned these switches were done mostly by the school itself and they found it difficult to adhere to the curriculum. This means that the school itself transferring youth between groups made it very difficult for the staff to teach youth the same lessons, at the same pace. As a result, the staff reported lack of responsiveness from youth when this occurred.

**There was an issue of youth at vastly different prior skill knowledge and sport development.** Three staff discussed their struggle with adhering daily lessons to youth at various skill levels. For example, one reported trying to effectively engage youth with years of experience and a youth who has never played the sport previously was a major staff challenge. One staff mentioned, “Many of the youth have their own basketball practice that day so they just want to come and play while other people need to learn the basic skills.” Overall, youth displayed different responsiveness depending on skill level. This caused difficulty for the facilitators with regards to providing lessons for all parties involved.

**Many facilitators felt as though they were not prepared to teach certain sports.** Four of the staff mentioned that they were not fully competent in terms of their ability to facilitate lessons. They reported that their quality of delivery was not as high as they desired for specific sports. Two staff who indicated this reported that they were competent with instruction in one sport, but perhaps did not feel they had the skills to other areas of the curriculum. In other words, the staff had various levels of experience in
terms of their previous history instructing sport. For example, one staff showed this saying, “(My competence) depends on the sport. For basketball, yes I was. Having background knowledge made it easier to teach. With others like dance or Chalk Talk, it didn’t work as much.” One theme that emerged was that much of staff only felt comfortable in the sport they facilitated the majority of the time. The difficulty of facilitating without being confident in skills for a certain sport was discussed by one staff member when they said, “It was hard for me to always get them involved if I was not 100% knowledgeable myself.” The staff reported very different levels of quality of delivery in providing adequate instruction across the various sports.

Quantitative Results Study Outline

The second research question looked at the quantitative data collected through daily session logs, exploring the degree to which the LiFE Sports curriculum was implemented with fidelity.

In all, the 114 session logs submitted revealed that the average length of session time was 42.37 minutes, and ranged from 25-50 minutes. (SD = 6.03). Within the sessions, staff reported spending an average of 25.63 (SD = 13.52) on LiFE Sports curriculum with a range from 0 to 50 minutes. Note the relatively high standard deviations, as they indicate that there was much variability in the length sessions and length of time spent on LiFE Sports curriculum overall. More specific, results were separated into two tables.
Table 1 shows trends displayed in each of the seven questions on the session log form., providing the average response for each question, standard deviation, percentage of the staff who answered “Not at all/A little” (0-1 on the Likert scale), as well as the percentage of staff who answered “Mostly/Completely” (5-6 on the Likert scale). Overall, the mean ranged from 3.03 (on a 0-6 measureable scale) for question 5 “I followed the LIFE Sports curriculum today” to 3.89 for question 3 “Youth were engaged in today’s curriculum.” The standard deviation ranged from (SD = 1.34) for question 3 “Youth were engaged in today’s curriculum” to (SD = 1.58) for question 6 “I added new elements to today’s curriculum.” The percentage of staff who answered “Mostly/Completely” ranged from 21.1% for question 7 “I implemented most of today’s curriculum” to 48.2% for question 3 “Youth were engaged in today’s curriculum.” Finally, the percentage of staff who answered “Not at all/A little” ranged from 9.6% for question 3 “Youth were engaged in today’s curriculum” to 21.1% for both question 6 “I added new elements to today’s curriculum and question 7 “I implemented most of today’s curriculum.” Refer to Appendix C: Table 1.

Table 2 showed two trends for investigation. The first trend examined results separated by sport across all seven questions of the session log. For basketball the average reported number ranged from 2.32 for question 4 “I felt I had sufficient time to implement today’s curriculum” to 3.64 for question 3 “I felt the youth were engaged in today’s curriculum.” The standard deviation ranged from (SD = 1.45) to (SD = 1.73). The percentage of staff that answered “Mostly/Completely” for basketball ranged from 7.1% for question 4 to 39.3% for both questions 1 and 3. The percentage of staff that reported
“Not at all/A little” for basketball ranged from 14.3% for question 3 to 46.4% for question 4. For volleyball, the average answers ranged from 2.85 for question 6 “I added new elements to today’s curriculum” to 3.75 for question 3 “I felt the youth were engaged in today’s curriculum.” The standard deviation ranged from (SD = 1.39) to (SD = 1.77). The percentage of staff that answered “Mostly/Completely” for volleyball ranged from 20% for question 2 to 45% for question 3. The percentage of staff that reported “Not at all/A little” for volleyball ranged from 15% for question 3 to 40% for question 6. The mean answers for Chalk Talk ranged from 3.08 for question 7 “I implemented most of today’s curriculum” to 4.59 for question 1 “I felt I delivered today’s lesson with competence.” The standard deviation ranged from (SD = 0.83) to (SD = 1.19). The percentage of staff that answered “Mostly/Completely” for Chalk Talk ranged from 5.4% for question 5 to 78.4% for question 1. The percentage of staff that reported “Not at all/A little” for Chalk Talk ranged from 0% for questions 1 and 2 to 8.1% for question 5. Lastly, answers for dance ranged from 2.72 for question 5 “I followed the LIFE Sports curriculum today” to 3.9 for question 6 “I added new elements to today’s curriculum.” The standard deviation ranged from (SD = 1.32) to (SD = 1.7). The percentage of staff that answered “Mostly/Completely” for dance ranged from 20.7% for question 5 to 48.3% for question 6. The percentage of staff that reported “Not at all/A little” for dance ranged from 6.9% for question 4 to 34.5% for question 5.

The second trend examined the difference in responses among the four sports across the session log items. For question 1 the mean ranged from 3.25 for volleyball to 4.59 for Chalk Talk. The standard deviation ranged from (SD = 0.83) for Chalk Talk to
(SD = 1.6) for basketball. The percentage of staff that answered “Mostly/Completely” ranged from 25% for volleyball to 78.4% for Chalk Talk. Finally, the percentage of staff that reported “Not at all/A little” ranged from 0% for Chalk Talk to 21.4% for basketball. For question 2 the mean ranged from 3.05 for volleyball to 4.43 for Chalk Talk. The standard deviation ranged from (SD = 0.9) for Chalk Talk to (SD = 1.7) for basketball. The percentage of staff that answered “Mostly/Completely” ranged from 20% for volleyball to 67.6% for Chalk Talk. Finally, the percentage of staff that reported “Not at all/A little” ranged from 0% for Chalk Talk to 32.1% for basketball. For question 3 the mean ranged from 3.64 for basketball to 4.32 for Chalk Talk. The standard deviation ranged from (SD = 0.94) for Chalk Talk to (SD = 1.52) for volleyball. The percentage of staff that answered “Mostly/Completely” ranged from 39.3% for basketball to 59.5% for Chalk Talk. Finally, the percentage of staff that reported “Not at all/A little” ranged from 0% for Chalk Talk to 15% for volleyball. For question 4 the mean ranged from 3.15 for volleyball to 3.79 for Dance. The standard deviation ranged from (SD = 1.12) for Chalk Talk to (SD = 1.49) for basketball. The percentage of staff that answered “Mostly/Completely” ranged from 10.7% for basketball to 44.8% for Dance. Finally, the percentage of staff that reported “Not at all/A little” ranged from 5.4% for Chalk Talk to 46.4% for basketball. For question 5 the mean ranged from 2.72 for Dance to 3.14 for Chalk Talk and basketball. The standard deviation ranged from (SD = 1.06) for Chalk Talk to (SD = 1.77) for volleyball. The percentage of staff that answered “Mostly/Completely” ranged from 5.4% for Chalk Talk to 35% for volleyball. Finally, the percentage of staff that reported “Not at all/A little” ranged from 8.1% for Chalk Talk
to 35% for volleyball. For question 6 the mean ranged from 2.79 for basketball to 4.08 for Chalk Talk. The standard deviation ranged from (SD = 1.19) for Chalk Talk to (SD = 1.76) for volleyball. The percentage of staff that answered “Mostly/Completely” ranged from 25% for volleyball to 51.4% for Chalk Talk. Finally, the percentage of staff that reported “Not at all/A little” ranged from 5.4% for Chalk Talk to 40% for volleyball. For question 7 the mean ranged from 2.75 for basketball to 3.34 for Chalk Talk. The standard deviation ranged from (SD = 1.04) for Chalk Talk to 1.7 for Dance. The percentage of staff that answered “Mostly/Completely” ranged from 7.1% for basketball to 44.8% for Dance. Finally, the percentage of staff that reported “Not at all/A little” ranged from 5.4% for Chalk Talk to 35.7% for basketball.
Chapter 5: Discussion

The purpose of the study was to use multiple methods, both quantitative and qualitative, to gain understanding into the extent of the fidelity in which the curriculum was implemented and to understand factors associated with common strengths and barriers to the adoption of the curriculum to the after school model. The findings will enhance the understanding of the successes and challenges of the LiFE Sports curriculum’s adaptation to an after school model. Understanding which areas staff reported were strong and what barriers they reported facing is essential to the LiFE Sports adoption going forward.

Understanding the successes and challenges of programming is important to keep at-risk youth from diverse backgrounds engaged in quality programming. There is an opportunity for at-risk youth to utilize PYD programming as a protective factor that helps them build coping mechanisms and reduce risk factors. Establishing PYD programs that are accessible, show proven results, and keeps youth interested is important to helping at-risk youth involved in prosocial activities. In general, the principle shaping growth should be acknowledge and support the current PYD program types, to assure children and families a measure of choice (Halpern, 1999). To improve outcomes, youth need access to programs that connect with diverse groups and appeal to at-risk youth who need
quality programming the most. The available evidence suggests that, although programs for low-income children vary on these attributes, there is cause for concern about program quality (Halpern, 1999). Studying implementation fidelity surrounding PYD programming in an afterschool sports-based PYD setting is important to understand facilitators and barriers to use in future programming for the youth that need it the most.

Findings considered facilitators were aspects of the curriculum the staff felt helped them teach the curriculum’s intent. The staff reported facilitators to be the effectiveness of the dual sport and social skill development, the helpful structure of the curriculum to allow for a base for instruction, the strength of the curriculum’s basic skill instruction for effective youth learning, and the positive effect of active participation within the lessons. These aspects of the LiFE Sports curriculum contributed positively to their ability to deliver the lessons to youth. Understanding the commonly reported facilitators helps with implementation fidelity because they contribute to better instruction. Knowing what aspects of the curriculum allow for better fidelity will promote better quality programming in the future.

Factors considered barriers were parts of the curriculum staff discussed made it difficult for them to implement the curriculum as intended. Major barriers including dosage (how much time they had to teach curriculum), space to administer lessons effectively, adhering lessons to youth with varying skill levels, and basic programmatic diversions arose from the research. These aspects of the LiFE Sports curriculum made it a challenge for the staff to get intended sport and social skill across to the youth
participants. The barriers will need to be addressed to further support quality programming in the future.

Barriers have been found, for example, in social science studies on drug abuse prevention research implemented in schools. It was reported that even under intense observation for high accountability there was tremendous variability in how consistently different teachers presented program material. Fidelity was a challenge because each lesson had different variables including different teachers and youth participants involved. Similar barriers have been seen in studies such as “Project STAR” (Pentz, Trebow, Hansen, MacKinnon, Dwyer, Johnson, Flay, Daniels & Calvin, 1990) and “Know Your Body” (Resnicow, Cross & Wynder, 1993).

What the qualitative results showed is that the LiFE Sports curriculum is translatable to an after school model in its core values and content, but there are numerous barriers that these schools face in adopting the curriculum which are often out of their control that limit their ability to facilitate the material with fidelity. The youth were engaged, according to staff, but did not get the full effect of the intended curriculum.

The quantitative data showed many similar findings to the qualitative data. Similarly to the interview findings, overall raw data showed the staff reported on their session logs that youth were generally engaged and responded well to lessons. Likewise, the staff felt they did not adhere to the curriculum and the dosage they received was not adequate. The average session was only 42.37 minutes on average, and the LiFE Sports curriculum was only focused for an average 25.63 minutes of that time. This is worth
noting because the LIFE Sports curriculum is designed to be implemented in one hour sessions and was a major challenge to implementation. In regards to specific sports, volleyball was reported to be difficult to implement with fidelity because of struggles with space. Staff found volleyball challenging to implement with fidelity because fewer youth had previous experience with the sport and the space was too small for proper curriculum following for certain drills. Also, staff that had experience teaching volleyball had less experience (thus likely less quality of delivery) compared to experience with basketball, for example. Chalk Talk had a high results in youth responsiveness in the session log forms yet in the qualitative interviews engagement was reported as a barrier overall. This disparity is likely a result to inconsistent reporting as well as the fact that only two staff in the study submitted data causing a less diverse perspective of reporting than other sports. The positive reporting for youth responsiveness was due to the fact that space was less of an issue with Chalk Talk compared to other sports. Chalk Talk is typically taught in a classroom setting so the lack of gym space was reported to be less of a factor for Chalk Talk. Dance was a challenge not only because the youth felt self-conscious about dancing in front of their peers, but also because the designed dance curriculum does not have a full fifteen day progressive curriculum. This is because during the LiFE Sports summer camp the youth do five days of dance curriculum, thus it is designed for five days, not the full fifteen as with other sports.

Overall, findings show barriers and facilitators as well as provide descriptive information about the degree to which LiFE Sports was implemented in the afterschool program. To dive deeper into the findings of surrounding implementation fidelity, the
results from both the qualitative and quantitative were synthesized and examined across the five aspects of effective implementation.

Findings across the Five Implementation Fidelity Factors

Using Dane and Schneider’s (1998) five factors from which to measure implementation fidelity, data from the quantitative and qualitative portion of the study can be triangulated to demonstrate commonalities related to successes with the adoption of the curriculum, as well as examine barriers much of the staff experienced. Both the session logs and interviews were designed in the context of the five factors highlight. The following will outline findings surrounding the five themes including facilitators and barriers within the framework of each of them. Both the qualitative and quantitative findings were utilized to outline the findings within the framework. Further, discussion on which of the factors promoting fidelity were facilitators and which were barriers is included in the sections.

Adherence

Consistently staff reported multiple barriers they faced with respect to following the curriculum. Those factors included space issues, time constraints, class size, inconsistency in attendance (youth coming joining groups at random points in the curriculum), and keeping the youth engaged after basic skills were taught. Staff generally had problems following a curriculum designed for an hour when the quantitative data showed that the average time spent on curriculum in each session was 25.63 minutes. The
curriculum was also designed for adoption at Ohio State’s adequate facilities and with groups that are below thirty in number. Additionally, the issue of youth rotating groups throughout the curriculum days is not a typical issue at LiFE Sports summer camp, but staff at the two schools reported that to be an issue in their program.

A major facilitator was that the content was easy to follow for basic skill teaching and acquisition of sport skills. Much of the staff interviewed discussed while they struggled to incorporate the full lesson in the allotted time, they thought much of the curriculum (especially the basic skills) provided good content they could follow and implement with success. One strategy for assessing adherence in previous research has used (as with this study) a self-report tool surrounding topics that were covered in any given session or activity. However, a recently published report (Hansen and McNeal, 1999) suggests that many facilitators may not have sufficient training in prevention concepts to distinguish between included and excluded elements. So, while self-report has historically been the methods in studying adherence to curriculum, it suggested that the limitations can be significant and should be explored further.

Overall adherence, however, was difficult for the staff as a result of factors that were often out of their control such as space issues, class size, and youth rotating to different groups throughout the lessons. Both the session logs and the interviews pointed out major barriers to adherence to the curriculum. The content was appreciated by most, as many reported that it provided a good foundation to follow, but the data shows that they had trouble following the curriculum as intended due to youth wanting to “play games” and the fact that the youth had wide ranges of skills in each sport. Thus the youth
need different levels of skill instruction, but there is not enough staff, nor is the curriculum designed to adhere to such varying levels on skill development.

Dosage

Overall, the staff reported an average 25.63 minutes spent on the daily curriculum. With an intended time of one hour for implementation, this was a major barrier content acquisition. Staff reported this was due to various factors including behavior, changes in schedule, class rotations, as well as insufficient space, and large class size. The basic structure of their model in after school did not allow for adequate dosage according to what the LiFE Sports curriculum expects the youth to receive.

The interviews provided some positive insight from the staff. A few of the staff discussed that they felt the youth received the lesson more adequately when the class sizes were smaller. They also reported they were able to cover more of the lesson in the time allotted as a result of good behavior and less distraction. These reports showed that the staff felt that the more time they had to facilitate, the greater benefit the youth received. The quantitative data for question 4 “I feel I had sufficient time to implement the curriculum” showed low averages on the session logs, especially in basketball. These challenges showed that staff found it difficult to get youth focused on a frequent basis. Despite some inconsistent findings surrounding dosage, programs show to be less efficacious for subjects who have attended a small proportion of planned sessions so it is important to measure in terms of fidelity (Dane & Schneider, 1998). Similar to this study, research has shown challenges to obtaining good data surrounding dosage. Nonetheless, it is important to collect to understand how much curriculum youth are receiving.
The category of dosage was the factor that was the biggest hurdle with implementation of the curriculum. Successful implementation according to LIFE Sports standards was, in effect, impossible as the facilitators did not have sufficient time to teach the curriculum.

Youth Responsiveness

Staff generally reported that the youth at both schools were interested in the curriculum. Concern with participant engagement revolved around difficulties with behavior management. Successful engagement with large class sizes and insufficient time to implement daily lessons was discussed as a struggle. Poor behavior distracted the class as a whole often. Some facilitators reported having support from other staff members to help with distractions from the lessons, but of those that did mention having “behavioral support” they mentioned it being quite inconsistent. Another facilitator concern was they felt that while a strength of the curriculum was the basic skill development for many youth, they felt the youth lost interest after a few sessions and just wanted to play games. The facilitators expressed in order to keep the youth engaged they had to try to teach skill during game play or deal with them being less responsive to the lessons. Staff overall felt the curriculum was too slow paced for many of the youth.

The two areas that youth had trouble staying engaged, according to interviews, were dance and Chalk Talk. Conversely, the session logs show strong engagement in these areas. More specifically, dance showed similar trends across both data collection methods showing a consistent struggle for staff to keep the youth interested. For dance,
the youth were often uncomfortable putting themselves in the spotlight as well as
confusion about direction of the curriculum as a result of differences between the summer
model and the after school model. For Chalk Talk the issue was lack of consistent active
engagement. The youth often wanted to “just go play” other sports rather than learning
about their actions within the sports and making that connection.

A positive element associated with youth engagement was that staff reported that
the curriculum was successful in helping the youth learn actively by experiencing the
content. Previous studies have looked at training teachers to use cooperative learning
strategies (Hawkins, Abbott, Catalano, & Gilmore, 1991). While it is inconclusive how
much the staff used “cooperative learning strategies”, they reported using various levels
facilitating strategies based on previous experience and comfort level with the
curriculum.

The more active the lesson was, the better it was received by the youth. Staff said
often youth would point out classmates using S.E.T.S. during activities showing that they
understood the curriculum through experience. A few staff also reported that they saw
better youth responsiveness when they involved themselves in drills and engaged on the
youth’s level as opposed to just instructing from afar.

Youth responsiveness of youth to the LiFE Sports curriculum was generally
strong. While staff had concerns with youth interest in dance and Chalk Talk, overall they
were interested in learning the curriculum.
Quality of Delivery

Quality of curriculum delivery varied greatly based on a wide range of factors. Many issues related to struggles with youth responsiveness also affected reporting on quality of delivery. Often the issues that affected quality of delivery were out of the control of the facilitator. Some of those issues that affected facilitator’s perception of their delivery included youth coming and going throughout the curriculum, lack of time, and youth to instructor ratio. Mostly the staff reported issues with quality when they felt constrained by the school’s schedule and general environment. The session logs specifically showed that dance was an area in which staff felt their quality of delivery was particularly low. Many suggested the after school program should hire someone with dance experience based on its complexity.

Quality was improved when facilitators prepared for their lessons, had some previous experience, and related well with the youth. This was similar to previous studies that focus on interactivity as a key for successful drug prevention (Tobler & Stratton, 1997). The quality of interaction and the degree to which interactive activities focus attention on desired elements are thus important to measure. Quality delivery of curriculum is an important element to investigate because facilitators are the vehicles that deliver the message of the curriculum.

The facilitators who mentioned they had previous experience working with youth in a sports environment discussed they felt as a result of their past they were more confident in their ability to implement the curriculum with competence. No matter their experience level, staff expressed improvement when they did adequate preparation for the
lessons. Additionally, staff felt their quality of instruction improved when they involved themselves in the activities and relating to the youth and showing some vulnerability to learn along with them.

In an attempt to improve quality (especially ones with less previous experience with sports or working with youth), staff commonly expressed interest in additional training on the various sports, and how to run affective lessons. Some of this desire was as a result of not attending the LiFE Sports training at the start of the school year because of high turnover within the organization, but they did desire to get more training throughout the year with multiple days of curriculum. One interviewee suggested bringing in experienced coaches to teach drills and give basic instruction techniques.

*Program Differentiation*

These staff also reported in interviews that the LiFE Sports curriculum supplied them with material that was unique, and helped the youth learn in a new way. The curriculum was unique to most of the staff in the fact that it simultaneously taught various sport basics and social skills. While it is important to look at differentiation between programs component analysis has been rare (Hansen et al., 1988). However, component analysis is important to determining which elements of prevention programs are essential and thus should be measured for fidelity.

Most of the staff felt that programming was more structured at their schools as a result of having the unique curriculum to shape their lessons. They consistently said they were more equipped to be a successful facilitator because of the curriculum’s content and
the fact that youth were generally interested in the content presented. Program
differentiation was not captured within the session logs as it did not fit into a Likert scale
format.

Program differentiation was the category in which the LiFE Sports curriculum
stood out positively more than any of Dane and Schneider’s (1998) five factors from
which to measure implementation fidelity. It provided a unique, structured platform for
the staff to work with youth to build their basic sport skills while understanding their
actions and learning important social skill development.

Together, facilitators helped staff implement the curriculum with fidelity, and
barriers prevented effective implementation. The study provided information showing
that some areas of Dane and Schneider’s (1998) five aspects of successful
implementation fidelity were better achieved than others. The aspects of youth
responsiveness and program differentiation were positively reported while adherence,
dosage and quality of delivery more negatively reported. In connecting these findings to
promoting quality afterschool programs, it is important that programming is intentional
and effective and also implemented with fidelity for better outcomes. Quality PYD is
important to youth development. Creating programming youth are interested in, and
benefits them by building assets through social and sports skills is important.
Furthermore, quality program needs to be monitored for fidelity so that areas of
improvement can be evaluated and adjusted as necessary.
Limitations

The study provided some beneficial information on general themes and trends in understanding factors associated with adopting the LiFE Sports curriculum yet there are limitations to the study to acknowledge. Also, it should be noted that this study investigated just one setting (school) for the implementation of the curriculum. The main limitation was the reliability of the data as it was all self-report and self-disclosure. While they understood the importance of reliable data and the benefit for future programming, personal bias was likely, especially in the session logs. As most of the sessions are facilitated by one staff member, a limitation is that for the reported data there is only that one staff member’s perspective. As a result of this, their self-reported data cannot be compared to another staff member’s data for each session.

Another limitation of the study is the sample size. There were eight interviewees, and the session logs came almost entirely from those same eight people. While the data covered everyone that had been with the program at each school for a significant period of time (average of 5 months), it is still a small sample of data to work with. While saturation was closed to being met, more a few more interviews, and more consistent data collection for the session logs would have been helpful to garner more information. The generatively of the study was a concern because it was a small sample of the overall staff across all schools.

Some sports, such as Chalk talk, only had session logs from two different people while basketball had data from four staff who reported having facilitated basketball for at
least one lesson. This made the data skewed as Chalk Talk had less people’s perspectives than basketball did. In the end, this may have inflated some of the responses.

As a result of the large staff turnover throughout the year, consistent data (mostly with quantitative session logs) was very challenging to collect. The result was the evidence of gaps in reporting on session logs with days missing. The data collector was not able to be on site at the end of each day to collect session log data, thus daily checks were not performed. The data was collected weekly and often it was tough to fill in gaps in the reporting. The issue of turnover of staff also left difficulties in terms of understanding trends of certain staff members. When they unexpectedly leave their positions it creates challenges with regards to incomplete data and the inability to follow up with them if necessary.

The last major limitation was that the data were collected from only two of the seven schools in Ohio implementing the LiFE Sports curriculum into their after school programs. While the capacity of one researcher did not lend to further data gathering, it is a limitation to the data. Additionally, the two schools in the study are both charter schools with mostly identical models in terms of environment, age range, and rules. While it provided a depth of information to pull from, the breadth of data across various after school settings was not part of the study.

**Future Directions for Research**

Future research should address these various limitations, and further examine quality of curriculum implementation fidelity in afterschool program settings. More
specifically, there is a great opportunity to continue research in more afterschool programs adopting the LiFE Sports curriculum to get a more in depth, and more eclectic data to better understand what is working in the after school model and what could be improved. The greater the focus on understanding how to implement the curriculum more effectively, the better the implementation will be for future programs that may adopt the curriculum.

Specifically, if further research is conducted it would be helpful to increase the sample size, spread the study over different types of schools implementing the curriculum, and focus on more intense oversight for data collection to ensure more consistent reporting. This study provided a baseline of more general themes that evolved from a small sample of staff. Future directions should look to expand on this initial study to get more specific about certain days within the curriculum and understanding which days lend to successful or difficult implementation of the curriculum and why that may be.

Conclusion

PYD programs can make different in lives of youth. If implemented with intentionally and monitored for fidelity of implementation programs can increase protective factors and reduce risk factors. The quality of PYD programs, including sports-based PYD programs, must continue to improve to positively impact more youth. Many programs are adopting curriculum and evidence-based practices. Thus far, the degree to which they implement these evidence-based practices is unclear. This study gives insights
into implementation fidelity and its importance to quality programming. This research shows the barriers and facilitators associated with program delivery. There are necessary elements of programs that need to be in place to support adoption and/or other program elements that need to be reduced. Findings also suggest that if certain aspects that restrict positive program delivery must be addressed, the curriculum and evidence based strategies won’t be implemented to the degree desired for PYD. This is necessary to provide support for youth involved in PYD, as well as helping to keep them engaged in prosocial activities during out of school time. Programming that is interesting to youth, and promotes positive development, helps address broader youth development outcomes and ensures all kids succeed.
References


Appendix A: Session Review Logs
## SESSION REVIEW LOG

Who led the session? (Circle your number): 1  2  3  4  5  6  7  8  9  10  11  12  13  14  15

Today’s Date: _____________    Session (circle): 1st

Which sport was covered today?

Which day of the sport’s lesson was covered today?

Length of session (minutes): _____________

Minutes spent on LiFE Sports Curriculum: _____________

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**Not at all**

**On a scale of 0-6, rate the following statements.**

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<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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1. I feel I delivered today’s LiFE Sports curriculum with competence.  ○ ○ ○ ○ ○ ○ ○

2. I think the youth learned the intended lesson today.  ○ ○ ○ ○ ○ ○ ○

3. I feel like the youth were engaged in today’s lesson.  ○ ○ ○ ○ ○ ○ ○

4. The amount of time was sufficient for youth to get the intended skills from the lesson.  ○ ○ ○ ○ ○ ○ ○

5. I followed the LiFE Sports curriculum today.  ○ ○ ○ ○ ○ ○ ○

6. I had to add new elements to today’s LiFE Sports curriculum.  ○ ○ ○ ○ ○ ○ ○

7. I implemented most of today’s LiFE Sports curriculum.  ○ ○ ○ ○ ○ ○ ○

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Appendix B: Interview Questions
Interview Questions

*These questions will be based off of informed quantitative data to further investigate the factors that affect implementation fidelity of the LiFE Sports curriculum.

**Opening Question**
1. How has your experience been teaching LiFE Sports?
2. What is your role in ASAS as it relates to LiFE Sports?
3. What do you like about the LiFE Sports curriculum?
4. What do you dislike about the LiFE Sports curriculum?

**Dosage**
1. What affects your ability to teach the LiFE Sports curriculum?

Probing Questions:
   a. What factors affect your ability to teach the curriculum in the allotted timeframe?
   b. Do you think the youth can learn the intended information in the time you have? Explain.
   c. Do you have enough time to teach the daily curriculum? Please explain.
   d. Could the curriculum be improved to make it easier to implement? If so, how?

**Adherence**
1. How closely do you follow the LiFE Sports curriculum daily?

Probing Questions:
   a. What challenges do you face in attempting follow the LiFE Sports curriculum?
   b. What factors do you attribute to not being able to stick to the daily curriculum?

**Youth Responsiveness**
1. Overall, do you feel the youth are engaged in the LiFE Sports curriculum?

Probing Questions:
   a. What factors lead to the lack of engagement with the curriculum?
   b. What factors lead to strong engagement with the curriculum?
   c. What, if anything, would you do to make the youth more engaged in the curriculum lesson?

**Quality of Delivery**
1. Beyond simply following the LiFE Sports curriculum, do you feel you are able to teach the lessons with competence? If so, please explain.

Probing Questions:
   a. What makes you believe you are implementing the curriculum with competence?
   b. What factors challenge your ability to implement the curriculum with competence?
c. What skills do you have that allow you to teach the curriculum with proficiency?

**Differentiation**

1. What differences, if any, do you see in the LiFE Sports curriculum compared to other sports-based youth programs’ curriculum?

Probing Questions:

a. Do you believe the LiFE Sports curriculum helps the youth learn in a new way?

b. What about LiFE Sports curriculum makes it unique?

c. What would your sports-based programming look like if you did not have LIFE Sports curriculum?
Appendix C: Tables
Table 1: *Quantitative calculations of general response rates to individual session log questions*

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>SD</th>
<th>Mostly/Completely (%)</th>
<th>Not at all/A little (%)</th>
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<tbody>
<tr>
<td>I feel I delivered today’s LiFE sports curriculum with competence</td>
<td>3.73</td>
<td>1.45</td>
<td>46.5</td>
<td>14.0</td>
</tr>
<tr>
<td>I think the youth learned the intended lesson today</td>
<td>3.54</td>
<td>1.55</td>
<td>42.1</td>
<td>18.4</td>
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<tr>
<td>I feel the youth were engaged in today’s lesson</td>
<td>3.89</td>
<td>1.34</td>
<td>48.2</td>
<td>9.6</td>
</tr>
<tr>
<td>The amount of time was sufficient for the youth to get the intended skills from the lesson</td>
<td>3.30</td>
<td>1.43</td>
<td>25.4</td>
<td>17.5</td>
</tr>
<tr>
<td>I followed the LiFE sports curriculum today</td>
<td>3.03</td>
<td>1.42</td>
<td>22.8</td>
<td>18.4</td>
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<tr>
<td>I had to add new elements to today’s curriculum</td>
<td>3.50</td>
<td>1.58</td>
<td>40.4</td>
<td>21.1</td>
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<tr>
<td>I implemented most of today’s curriculum</td>
<td>3.08</td>
<td>1.43</td>
<td>21.1</td>
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Table 2: *Quantitative calculations of staff responses categorized by sport*

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<tr>
<th>Item</th>
<th>Mean</th>
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<th>Mostly/Completely</th>
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<tr>
<th></th>
<th>Basketball</th>
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<th>Volleyball</th>
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<th>Chalk Talk</th>
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<tr>
<td>I feel I delivered today’s LiFE</td>
<td>3.50</td>
<td>1.60</td>
<td>39.3</td>
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<td>sports curriculum with competence</td>
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<td>I think the youth learned the</td>
<td>3.07</td>
<td>1.70</td>
<td>32.1</td>
<td>32.1</td>
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<td>intended lesson today</td>
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