Building Program Quality in Youth Development Staff Training: Critical Components as Perceived by Currently Employed Youth Development Professionals in the United States

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BUILDING PROGRAM QUALITY IN YOUTH DEVELOPMENT STAFF TRAINING: CRITICAL COMPONENTS AS PERCEIVED BY CURRENTLY EMPLOYED YOUTH DEVELOPMENT PROFESSIONALS IN THE UNITED STATES

A Dissertation

Submitted to the Graduate Faculty of the
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by

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I dedicate this dissertation research to my beautiful daughter Skylie J. Norze and my lovely wife Edeline Renaudin Norze. They were the driving force behind my journey. The challenges were numerous, but their consistent love, support, and trust were the fuel that kept me going. Skylie is the center of my joy. I also dedicate this dissertation to my beautiful mother Demene Etienne. She worked tirelessly to make sure I got a good education. She never gave up. She has inspired me to always be disciplined and work hard. She instilled in me the values and morale that made me who I am today. I will be forever grateful to you “manman”. In addition, this dissertation is dedicated to my brothers Dieunord Norze, Wesnord Norze, Dieune Norze, Jesunor Norze, Nonca Norze, Nonky Norze, Therineau Norze and my sisters Dieunette Norze, Dieumene Norze, Andremise, and Andrela. They always support and trust me. The greatest gift I ever received in my life was from my brother Dieunord. He encouraged me to develop a personal relationship with Jesus, which transformed my life forever. Having Jesus in my life has enhanced my confidence to continue my journey. Finally, I would like to dedicate this dissertation to my beloved father Jean Nortyl Norze who, unfortunately, left us too soon. He was my role model. He was a man of integrity, a visionary. He loved people. The doors of his house were always open to strangers. You are always with me.
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ABSTRACT

Program quality is the program characteristics, indicators, and implementation practices that stakeholders mutually agreed upon. These program quality components are interlinked. Therefore, it is critical to help youth practitioners think through the logical connection among the components of program quality. This can be partly achieved through professional development, which equips practitioners with competencies necessary to perform their tasks. As a result, a staff training model was designed to corroborate the work that has been done in the positive youth development field with the aim of achieving program quality using a systematic review method. This staff training model comprises four components: child/youth development, social ecological theory, program management, and program theory. This factorial structure of this model was assessed using exploratory factor analysis and confirmatory analysis using the responses from the Positive Youth Development Program Quality Competency Questionnaire (PYDPQCQ). The analyses yielded a valid, reliable 42-item, 6 factor solution. Additionally, the existence of a social support system for the youth development professionals was described using frequency, percentage and social network analysis. The members of the social support system was mainly the participants’ colleagues. The members of the social support system including the participants formed four main social communities. The social communities together appeared to form a sphere with the members of the social support system on the surface.
CHAPTER 1.  
INTRODUCTION

Rationale

Positive youth development (PYD) is based on the premise that youth have the potential for systematic change (Lerner et al, 2005). This PYD guiding principle is the foundation “for an exciting and promising array of programs for adolescents” (Roth & Brooks-Gunn, 2010, p.94). These programs are designed to provide youth safe, supervised, structured opportunities for skill-building across multiple domains (Holt, Sehn, Spence, Newton, & Ball, 2012), positive relationship-building between peers and adults (Camino, 2005), positive risk taking (National Institute of Food and Agriculture, 2016), and resilience (Roth & Brooks-Gunn, 2010) throughout their adolescence. These programs are critical for the healthy development of youth. They are a collection of deliberate experiences organized or sequenced in comprehensive ways to meet youth’s developmental needs and interests and/or enhance their learning experiences over a specific period of time—adolescence--, which is a critical period in people’s lives). Adolescence is an ontogenetic period to promote positive, healthy development (Taylor et al., 2005).

Youth are nested within a multilevel system (e.g., family, institution, community, society, culture, and time) in which they develop reciprocal relationships that are continually changing across time (Lerner et al., 2002). Scholars have documented the need for supervision of youth’s relations or interactions with the multilevel system because interactions are the “primary mechanisms” that produce human development (Lerner et al., 2005; Bronfenbrenner & Morris, 1998, p. 994). PYD programs have the potential to shape the quality of human development through the regulation of youth’s relations (Brandtstadter & Lerner, 1999; USDA, 2011). According to Pittman (1999), the primary task of PYD programs is the socialization of youth. Therefore, the PYD programs represent a worthwhile investment made by communities in young
people. This investment in youth is made possible through a combination of highly competitive federal, state, and local grants foundations, private donations, community organizations, and families (Harvard School of Public Health and The Washington-based Afterschool Alliance, 2009). A recent study conducted by the After-school Alliance showed that the families’ financial burden for after-school programs accounted for $113.50 on average a week. We believe that most stakeholders would like to see that youth benefit from their investment in youth serving organizations. This can only happen through quality implementation of a program’s features. However, many youth practitioners are faced with the challenges of implementing programs as originally planned (Hirsch, Mekinda, & Stawicki, 2010). This is partly because many youth workers have no formal education and training in program quality (Bowie & Bronte-Tinkew, 2006) or they are not adequately trained for this important work (Collins, Hill, & Miranda, 2008).

PYD is an evolving field that views all youth as assets and resources who deserve opportunities and support throughout their adolescence to become confident and competent adults (Batavick, 1997; Costello et al., 2001). This field is characterized by lack of consensus about core competencies that youth workers need to do the job. The absence of standardized credentials has left room for people with knowledge deficit in the field. For instance, prospective youth practitioners struggle to know what competencies they need to perform their tasks (Stevahn, King, Ghere, & Minnema, 2005). In addition, opportunities for reflective practices—self-assessment and self-development—are limited in the field. Further, training and professional development may occur based on one’s perceived needs or personal preference where crucial competencies can be often overlooked (Stevahn, King, Ghere, & Minnema, 2005). The existing confusion over youth workers’ core competencies may also hinder the development
of theories and research in the field, which in turn affects youth workers’ abilities to achieve program quality.

**Significance of the Study**

This study has significance for youth workers, prospective youth workers, recruiters, trainers/educators, program evaluators, researchers, and program administrators. Youth workers or professionals may use this study to enhance their reflective practices through continuous learning and skill refinement. Prospective youth workers can use this study to learn what it entails to become a competent practitioner and make decisions about what educational programs or professional development to attend. Recruiters may use this study to design job applications and recruit the best candidates for the job. Trainers or educators can use this study to design trainings or curriculums that meet the needs of the workforce. This study may be useful for program evaluators to determine the effectiveness of training programs. For researchers, this study might be an important step toward professionalization of the field in attempt to achieve program quality. Program administrators may use this study to enforce policies that support program quality.

**Purpose of the Study**

The primary purpose of this study is to examine a comprehensive staff-training framework that supports positive youth development program quality.

**Objectives of the Study**

1. To identify gaps in and inform future research about the staff core competencies needed to support PYD program quality;
2. To determine and validate the factorial structure of the Positive Youth Development Program Quality Competency Questionnaire (PYDPQCQ) using responses from youth working practitioners in the U.S.,

3. To describe the youth working practitioners’ perceived importance of program theory, program management, youth development, and social ecological theory as core components of staff training as measured by staff training implementation;

4. To determine if homogeneous groups of youth working practitioners exist based on their beliefs about the importance of the core components of staff training in relation to their duties as measured by staff training implementation;

5. To describe the characteristics of the extracted homogeneous groups of youth working practitioners as described by gender, age, years of service, and level of education;

6. To compare the extracted homogeneous groups of youth working practitioners based on their professional (level of education & years of service) and personal (gender & age) demographic characteristics as determined by staff training implementation;

7. To describe the perceived social support system of youth working practitioners as determined by staff collaboration;

8. To determine if colleagues, administrators, clients, and youth families represent a social support system for staff in the implementation of program quality as perceived by youth working practitioners.

Assumptions & Limitations of the Study

This study presents various limitations and assumptions. First, the proposed staff-training model has not yet been subjected to the scrutiny of other researchers’ perspectives nor practitioners’ perspectives. Additionally, it has not been structurally validated. The staff-training
model only reflects the perspective of the author of this study. Second, the researcher developed his own research instruments to measure the participants’ opinions on staff training importance versus program quality, program quality behaviors, and social support systems. We assume that the respondents were truthful in their responses. Third, the sampling procedure used was a convenience sample. This sampling technique does not allow the researchers to claim representativeness of the population. Therefore, it requires the readers to make decisions about the representativeness of the findings of the study. Fourth, the reviewed literature included only articles that were written in English. Therefore, the study findings may not be generalizable to settings where the population does not speak English.

Definitions of Terms

There are several terms in the study that might need to be defined. These terms are the following:

**Staff:** Several terminologies such as youth working practitioners, youth professionals, and youth workers were interchangeably used in the study to represent staff. They are staff who work directly with youth aging from nine to nineteen years old with the purpose of facilitating their development and growth or the 6Cs competency.

**Staff Training:** Professional development and training programs that aim at enhancing the competency of youth development staff to achieve program quality.

**Program Quality:** Program quality is operationally defined as the mutual accord between stakeholders on program features and indicators that are supported by evidence-based implementation practices and research.
Positive Youth Development: It is a strength-based approach focusing on the development of successful competent adults who can positively contribute to self, family, community, and the society as a whole.
CHAPTER 2.
A SYSTEMATIC REVIEW OF RELATED LITERATURE

Introduction

What Is Program Quality?

Program quality is one of the new focuses of evaluation capacity building (ECB) efforts, but has not been clearly defined in the literature (Hirsh, Mekinda, & Stawicki, 2010). Program quality must meet the specific needs of a target population (Riggs et al., 2010; Peirce et al., 2010), fit the environment (Eccles et al., 1993), and support the specific goals of the program itself (Hirsch, Mekinda, & Stawicki, 2010). For the purpose of this paper, program quality is defined as key program characteristics that program stakeholders (both internal and external) agree are critical to program success. Additionally, the quality of these characteristics is articulated with mutually agreed upon indicators. Researchers argue that program quality goes beyond the identification of program quality features, and there is a need to fully understand how to successfully implement these features (Larson & Walker, 2010). Thus, mutually identified program characteristics and indicators of program quality must be supported with implementation practices that lead to quality. Making sure the program quality features are successfully implemented is crucial, but it remains a challenge for practitioners (Hirsch, Mekinda, & Stawicki, 2010). Therefore, attention should be given to program structures (e.g. funding levels, staffing structure, and physical environment) and program process-- delivery attributes--that affect program quality (Arnold & Cater, 2016). Designing a program that incorporates implementation practices supporting quality is an essential step of the process (Sheldon et al., 2010; Cross et al., 2010). In the literature, staff training has been identified as one avenue for bridging the gap between program characteristics and implementation practices that influence program quality.
General Definition of Staff Training

Staff training is a process by which employees acquire the necessary skills and knowledge to perform a task or job better (Jucious, 1963). Staff training is designed to enhance short-term and/or long-term job performance of employees (DeSario et. al., 1994). As a result, employees become more proficient to produce more quality work. They become qualified to work in positions of greater challenges and responsibilities (Halim & Ali, 2005). Staff training is required for employees to systematically develop their knowledge, skills, and attitudes in order to meet program expectations (Olaniyan & Ojo, 2008). Moreover, staff training not only provides the skills and knowledge to improve job performance, but also aligns employees’ behaviors and attitudes with the vision, goals, and objectives of the program or organization (Halim & Ali, 2005). Staff training is based on the premise that the development of competences – knowledge, skills, and attitudes – are necessary for organizations to grow (Olaniyan & Ojo, 2008, Oribabor, 2000) and/or to meet programs outcomes. Staff training is a process that should be planned and continuous (Isyaku, 2000). The training activities should be carefully designed with the purpose of influencing the individual employees’ job performance or tasks (Orokov, Durning, & Pushkarev, n.d.). In brief, staff training enhances staff quality, which is a critical component that leads to high-quality programming (Miller, 2005). As a result, many researchers and staff, themselves, have called for training for those working with youth.

General Impacts of Staff Training

Staff training is necessary to reinforce youth workers' knowledge of theories, rationale of programs (Fixsen et al., 2005), and youth developmental needs (Huebner, Walker, & McFarland, 2003). Otherwise, youth workers may lack sound knowledge grounded in theories, research, and
Staff training can create a common understanding of youth development (Huebner, Walker, & McFarland, 2003), which aims at meeting youth developmental needs and building competencies to enable them to transition successfully to adulthood (Hall, Yohalem, Tolman, & Wilson, 2003). For instance, Weissberg found that staff training improves youth professionals' knowledge about 4-H youth development programs. Additionally, staff training equips professionals with varying skills—management skills, communication skills, listening skills and leadership skills—that are necessary to meet the divergent needs of youth (Bowie & Bronte-Tinkew, 2006) and sustain the quality of a program implementation (Weissberg).

Staff expertise is not defined by only their knowledge and skills but also their ability to respond to challenges and problems they face at work (D’All’Alba & Sandberg, 2006; Weiss et al., 2005). Many youth workers struggle to handle youth with antecedents of violent behavior (Larson & Walker, 2010) and issues related to race (Imam, 1999). As a result, staff members need to gain knowledge of the dilemmas of youth work (Schwandt, 2003), which have been classified into categories and subcategories (Larson & Walker, 2010).

Staff training exposes youth workers to best practices to reduce barriers to achieving outcomes (Donavant, 2009; Gallucci, VanLare, Yoon, & Boatright, 2010; Halst, 2009; Kasworm et al., 2010; Seevers, Conklin, & Graham, 2007). Some of the youth development best practices consist of considering age, developmental stage, and cultural appropriateness when designing programs (Collins, Hill, & Miranda, 2008). The same authors further argue that practitioners should be able to support and provide youth with opportunities for physical and psychological safety, relationship building, community involvement, and skill building. In addition, Mfeinsscoerm and Preofreksisnosr (2001) point out that staff training helps youth workers understand and assess programs in terms of the keys to quality youth programs. Quality positive
youth development programs, according to Eccles and Gootman (2002), are associated with the following factors: climate safety; appropriate structure; supportive relationships; opportunities to belong; positive social norms; support for efficacy and mattering; opportunities for skill building; and integration of family, school, and community efforts.

Staff training helps youth workers engage youth as partners and develop activities that meet their developmental needs and interests. Youth workers need to learn how to design and implement learning activities that give rise to close bonds with the staff members. Research has documented youth-adult relationships as a key factor for youth retention and success in positive youth development programs (Rhodes, 2004). As can be seen, staff training has been a determinant used to equip youth workers with the necessary competency to achieve high levels of implementation, which is crucial to achieving program outcomes (Durlak, 2013).

In an era of increasing needs and limited resources, staff training can serve as a platform where youth workers build networks to share and discuss work related information and find solutions to implementation inconsistencies (Bowie & Bronte-Tinkew, 2006). For instance, staff training can serve as a platform to discuss barriers to youth development practice such as time limits of programs, lack of resources, policies, directives, work overload, and so forth. Staff training can be a powerful platform to solve complex problems.

In addition, staff training helps youth workers understand program logic by building connections among program assumptions, resources, activities, and desired program outcomes. It helps youth workers understand the testable mechanisms that explain why program outcomes are achieved. This competency is critical to achieve and sustain program quality (XXXX, 2016).

Further, staff training helps identify challenges of overcoming staff resistance to change (Collins, Hill, & Miranda, 2008). Changing has always been hard. As a result, many practitioners
continue to use approaches with youth that have little or no evidence of effectiveness and are often very harmful to the society (Scott 2010; Institute of Medicine, 2011). Youth development approach is an evidence based approach that demands time and effort, which makes it hard to embrace (Collins, Hill, & Miranda, 2008). Staff training is an avenue to foster change and adoption.

Positive Youth Development (PYD) is a paradigm shift from other youth service fields that focus on youth assets or strengths instead of problems (Lerner & Benson, 2003; Pittman & Irby, 1996). Many youth workers have little background in positive youth development (Bowie & Bronte-Tinkew, 2006). Additionally, many youth staff enter in the field without specific job training (Vance, 2008). They often rely on their prior experiences, which are unrelated to work with children (Keller, 2007). Because youth staff are the frontline workers, it is necessary for youth staff to understand the philosophy and core components of positive youth development (Huebner, Walker, & McFarland, 2003). They have the potential to influence positively young people’s academic, social, and emotional achievements as well as their career choice and self-portrait (Bowie & Bronte-Tinkew, 2006). Staff training improves youth staff’s self-confidence (Lobley & Ouellette, 2013). According to Bowie & Bronte-Tinkew (2006), youth staff possess a unique characteristic – “sigfluence: a positive, significant, long-term interpersonal influence over youth”—that can be developed through trainings as they help young people transition successfully to adulthood (p.2).

We can no longer afford to rely only on youth staff’s best instincts and prior experiences to promote healthy, thriving young people (Borden, 2002). Over time, the course of inexperienced and untrained youth staff can influence negatively the competency level, strength, and effectiveness of a program (Bednar, 2003). Limited or inadequate staff training may affect
youth staff’s competency and confidence to implement program components effectively, which in turn may lead to burn out (Light, 2003).

Research has shown that staff training is one of the key elements in the overall effectiveness of a program’s ability to promote positive youth development (Astroth et al., 2004; Thomas, 2002; Walker, 2003). Youth staff who receive training are reported to have higher levels of competency (Huebner et al., 2003; Hartje, Evans, Killian, & Brown, 2008) and feel more relatable and more confident to work with youth (Hartje, Evans, Killian, & Brown, 2008; Collins, Hill, & Miranda, 2008). To sum-up, staff training equips youth staff with knowledge of relevant theory and research regarding youth’s physical, emotional, social, and cognitive development; risk and protective factors; and principles of adolescent development.

**Core components of Positive Youth Development Program Trainings**

Staff training can help youth workers who are from different educational backgrounds to have a common understanding of the core principles and practices of positive youth development (Keller, 2007). Having the ability to support youth development while simultaneously acting as partners to youth still remains a challenge for youth staff (Camino, 2005). According to Huebner, Walker, & McFarland (2003), youth staff should be able to understand and articulate the content of youth development work and deliver it appropriately where youth are engaged and interactive while experiencing developmental and learning growths. However, there is a lack of consensus on the core competencies that youth staff should possess.

Positive youth development consists of an array of activities, practices, mandates, and aspirations that are both confusing and promising (Huebner, Walker, & McFarland, 2003). The identification of core competencies is the first step toward creating a well-trained workforce to
deliver quality programs (Stone et al., 2004). Core competencies are the required knowledge, skills, and attitudes necessary for youth staff to produce and deliver high quality programming (Vance, 2010). Core competencies can be used as practice standards for youth staff and a guide for staff training efforts with the perspective to provide high quality youth programming (Starr et al., 2009; Stone et al., 2004). They can serve as a guide to design training for youth staff (Astroth et al., 2004). However, establishing core competencies for such a diverse youth-service field is challenging.

A review of 14 field based competency frameworks on content, structure, and usage in system-level initiatives resulted in considerable agreement in terms of the content (Starr et al., 2009). Vance (2008) found substantial agreement on the following contents: Child/youth development, positive guidance, families and communities, program management, professionalism, and communication. According to Vance’s study, a substantial agreement occurs when at least 80 percent of the considered frameworks included a particular competency area. As can be seen, there is common understanding that youth staff should understand the principles of child and youth development and be able to implement them at the program level. Second, they should use positive guidance to manage youth’s conduct. Third, they should build relationships with communities and organizations that support youth programs. Fourth, they should demonstrate management skills such as time management and resourcefulness when implementing a program. Finally, they should show professionalism by following the program rules and committing to professional growth. In addition, many youth workers acknowledge their priority needs for training in experiential learning methods and child & adolescent development (Diem, 2009).
The National Collaborative on Workforce and Disabilities (NCWD) for youth synthesized the competencies of youth service professionals in 10 competency areas: knowledge of the field, communication with youth, assessment and individualized planning, relationship to family and community, workforce preparation, career exploration, relationships with employers and between employer and employee, connection to resources, program design and delivery, and administrative skills.

In addition, Fordney and Jones (1990) suggested the following recommendations for positive youth development training programs. First, staff training for youth staff should consist of information on the characteristics of effective teachers, effective communication skills, and how to create learning opportunities and activities for youth to develop cognitive, social, and emotional skills. Second, youth staff should understand they have a greater role in the youth lives they serve than just lecturing and learn how to be a positive role model for them. Third, they need to understand that facilitators who appreciate life are more effective in impacting people’s lives.

Additionally, staff training should focus on motivating the potential implementers – youth staff members. Although the implementers’ motivation is essential to youth learning (Sinclair, Dowson & McInerney, 2006), this important objective is usually missing from most programs (Shek & Wai, 2008). Few program trainings include trainees’ motivation as part of their objectives (Kealey et al., 2000).

Moreover, self-efficacy could be an important program training goal because implementers with high self-efficacy are more confident in implementing innovative lesson plans (Stein & Wang, 1988). According to Turner, Nicholson, and Sanders (2011), high self-efficacy is
associated with implementation. Therefore, attention should be given to practitioners’ sense of competency for facilitating quality implementation.

Further, reflection should be encouraged among implementers. Since positive youth development programs emphasize the importance for youth to acquire self-reflection skills, it is necessary for youth workers to have the opportunity to understand and practice these skills. Although research has found that implementers who have strong self-reflection are able to integrate theory into practice (Herzog, 2004; Larrivee, 2000), few program trainings incorporate self-reflection in their curriculum (Fordney & Jones, 1990; Orpinas & Horne, 2004). It is important to provide staff with opportunities for skill demonstration, modeling, and feedback as well. Youth workers need to be able to express their opinions, challenge existing assumptions, and develop a shared language and understanding of development (Robertson, 1997).

Staff training should involve activities that can equip youth staff members with best contemporary instructional strategies to deliver educational contents (Garst, Baughman, & Franz, 2014). Educators’ teaching style should promote active, youth-centered learning (Bonk & Smith, 1998). They need to have the ability to shape the learning environment in such way that it promotes engagement, participation, understanding, creativity, and critical thinking. The use of technologies can enable educators to reshape the learning environment in which learners engage in a complex and rich network of resources and information (Bonk & King, in press).

Helping youth workers to attend advanced trainings, which reflect the culture and experience of youth in a community, can strengthen the development of youth program staff (National Collaboration for Youth, 2006), and further increase the quality of instruction for the potential youth development practitioners. According to Smith et al. (2012), educational organizations should focus on high-quality instruction.
An interagency collaboration between local colleges, universities and organizations or programs can enhance quality and credibility in the positive youth development field (Dennehy, Gannett, & Robbins, 2006) by developing jointly an agreed upon, standardized youth development curriculum. A similar interagency partnership can also pool resources to train youth workers (Center for School and Community Services, 2002). Some researchers suggest that there is a need to standardize the common practices in the field (Huebner, Walker, & McFarland, 2003). By building a network of experts for staff training, youth development professionals taking a critical step toward creating a well-trained workforce to deliver program quality with effective youth development practices (Freeman et al., 2009). The most influential youth programs are based on a developmental framework that use trained staff, provide appropriate structures, and encourage supportive relationships (Eccles & Gootman, 2002). Overall, deliberated programming and well-trained staff are critical to support and provide children and youth with opportunities to grow intellectually, socially, emotionally, and civically or morally.

**Objective of the Study**

The objective of this study was to identify gaps in and inform future research about the staff core competencies needed to support PYD program quality;

**Methods**

This was a systematic review of studies in the positive youth development field. The researchers developed a written protocol that described the criteria upon which the selected articles would be assessed for their inclusion in the study. These criteria are examined as follows:
**Inclusion Criteria**

The researchers included all relevant articles in youth development specifically those on positive youth development that addressed staff training implementation and evaluation as a proxy of program quality. Peer reviewed and non-peer reviewed articles were considered with the purpose of capturing as much relevant available information as possible in the study. These articles address most importantly program structures and program process that lead to successful implementation. Articles that focused on preventing youth’s problems were excluded.

**Interventions**

The researchers included in the study afterschool and community based interventions that support staff training and youth outcomes. In addition, training implementation and evaluation interventions that identify and promote youth development practices that lead to program quality were included.

**Outcome**

This comprised any outcome involving staff training outcomes and program quality core competencies. In addition, studies that showed evidence of the relationships between strength based youth development and developmental systems theories were included. Youth outcomes included competence, confidence, character, connection, and contribution. Staff training outcomes are the use of youth development practices in youth work. Core competencies of program quality are competencies necessary for successful implementation of positive youth development programs.

**Study Design**

All designs including, but not limited to, research survey designs and pre-post designs—empirical designs, and theoretical designs were considered in the study aiming at including as
many available relevant studies as possible. Non-randomized designs were included because they are more common in the field. This might be due to ethical issues generally associated with randomization of subjects and logistical limitations.

**Search Strategy**

The articles included in the study were searched in Google scholar. Their publication dated from 1970-2016. The researchers used the following key words for the search: “staff training in youth development,” “program implementation,” “program quality and positive youth development”, and “core competencies for youth workers.” In addition, useful articles from the reference lists of the selected studies were also included. The titles and the abstracts of all searched articles were examined for relevance before their inclusion in the study.

**Language**

The article search was conducted in English. Therefore, all included articles were written in English.

**Results**

**Staff Training As Factor of Program Quality**

Despite the importance of staff training, little research has studied the relationships between staff training and program quality (Huebner, Walker, and McFarland, 2003). Nevertheless, it is reasonable to presume that staff training is a factor of program quality since both researchers and practitioners have called for staff training (Huebner, Walker, & McFarland, 2003).

Research has shown a lack of consensus about the core competencies that youth workers should possess in order to fulfil their duties properly. Therefore, chosen 3 core components were chosen by the researchers, among the research finding lists that were believed to that may have a
greater impact on program quality implementation. These core components—program management, child/youth development, and program theory—should enable youth workers to establish logical connections between program structures and program processes, which are essential for program quality.

These three core components convey an integrated information base about program processes (fidelity, adaptation, and participation) and program structures (group size, staffing structure, physical environment). For instance, the core component “program management” provides youth workers with solid knowledge in youth participation, implementation fidelity, and regulation of youth-external systems interactions. Whereas, program theory prepares them on implementation fidelity and adaption. The core component “child/youth development” provides youth workers a foundation in youth participation, implementation adaptation, program structure, and youth-external system (family and community). As can be seen, in most cases the learning outcomes are similar and, therefore, overlapped. As a result, the contents that were believed to have stronger ties with core components were development. For instance, program management includes youth participation, program theory includes with fidelity and adaptation, and finally child/youth development includes program structures and youth-external system interactions.

However, to make the model more comprehensive, we unfold the youth-external systems interactions component separately from child/youth development and program management through the lens of the social ecological theory, which has increased the number of competencies in the staff training model to four components.
Program Management

Program management is essential to ensure quality participation. It involves mutuality planning and teaching, which build a trustworthy learning environment favorable to youth participation, which in turn is necessary for learning and growth.

Youth Participation

Youth participation is a multifaceted variable, but with no consensus about its dimensionality (Bohnert, Fredricks, & Randall, 2010). This multidimensional concept implies active engagement in a program. According to Lerner et al. (2005), it is the contribution of youths to their surrounding world. The most contemporaneous measurement of the youth participation dimension includes dosage, duration, breadth, intensity, and consistency (Bohnert, Fredricks, & Randall, 2010).

Research has reported participation as an important variable of youth development program quality (Hirsch, Mekinda, & Stawicki, 2010). Youths gain more from participation when their learning experiences extend over time in terms of intensity, duration, and breadth (Rorie et al., 2010). However, youth participation requires a safe haven, fun activities, and mutuality in teaching and learning to occur.

Research has shown that staff with strong behavioral management skills provides a safe environment conducive to development of peer and youth-adult relationships (Walker, 2006). Youths who develop positive relationships with adults are more engaged and less likely to drop out (Walker, 2006). In addition, a physically and psychological safe environment increases youth learning and participation (Almquist et al., 2016). According to McLaughlin (2000), adolescents should spend their time in a way that fosters learning and social development.
Research suggests that fun and challenging educational activities attract youths (Walker, 2006). Fun and challenging activities facilitate peer relationship development and learning whereas boring activities inhibit participation and learning (Fagan et al., 2008). Therefore, learning methods and activities that foster voluntary participation are encouraged. In addition, learning methods that tailor youths’ learning styles and offer opportunities for skill-building are encouraged since recreational and skill-building activities are attractive to young people (McLaughlin, 2000; Walker, 2006). Further, well-delivered intervention foster enthusiasm and commitment in participants (Carroll et al., 2007).

Further, mutuality in teaching and learning is critical for youth participation. Therefore, staff members need to work together with youths as partners. Setting norms together with youths is ideal to help them know in advance how to interact, share, learn, and grow together. According to Larson & Walker (2010), sharing norms, expectations, and limits with youths on acceptable conduct creates a predictable, secure environment for healthy development of adolescents. Youths are more likely to commit to guidelines issued from collaborative work with staff (Brophy, 1985).

**Program Theory**

Program theory is the mechanism by which program interventions are conceived to achieve the desired outcomes (Rogers, 2000, p.209). According to Weiss (2000), program theory is also the connections between the program assumptions and what actually occurs at “each small step along the way” (p.35). There is an emergent need to help staff think through these connections (Arnold & Cater, 2016). Program Theory is an avenue that fosters program adoption and implementation with fidelity.
**Fidelity**

Fidelity is a multidimensional variable of program quality, which can be measured in terms of adherence, dosage, quality of delivery, participants’ responsiveness, and program differentiation (Dusenbury et al., 2004). A comprehensive picture of fidelity can only be captured by using all the dimensions (Mihalic, 2008). Other researchers argue that fidelity can simply be measured by either adherence, dosage, or quality of delivery (Mihalic, 2002). According to Fagan et al., (2008), it is an imperative to deliver programs as planned in terms of dosage, integrity, and responsiveness.

For this review, program differentiation, which is according to Dusenbury et al. (2003), the identification of unique features and core components of programs, fits well with the purpose of this article. Core components can be determined by surveying program designers and/or conducting component analysis, which helps to know which components have the most impact (Dusenbury et al., 2003). Detailed information about core components are necessary to avoid drifting away from what was originally planned and to facilitate the evaluation (Chen, 1990; Lipsey, 1990). The deviation from implementation fidelity is a major concern (Dusenbury et al., 2003; Kaftarian et al., 2004). It becomes difficult to assess the theory behind the importance of core components of a program if they are not implemented with fidelity (Durlak & DuPre, 2004). In essence, for implementation to be effective, it needs to be congruent with theory, content, and methods of delivery.

**Adaptation**

Adaptation can be necessary to meet changes in developmental needs and interests despite the fact it is in conflict with fidelity. Youth development programs must be developmentally appropriate and/or stage-environment fit (Eccles, 2004). In addition, fidelity
can sometimes be in conflict with youths’ increased desire for independence and choice (Walker, 2006). However, adaptation needs to be aligned with the rationale of a program and carefully assessed during the implementation (Meyer & Durlak, 2012). Adaptation must preserve the core components of a program in order to achieve the intended outcomes (Meyer & Durlak, 2012). In other terms, adaptation should be theory-driven. In addition, adaptation may fail if the theory is not sound or valid (Rosenbaum, 1986). Similarly, lack of quality of adaptation leads to implementation failures (Durlak & DuPre, 2012). Therefore, science-based strategies must be used to regulate adaptation to prevent decrements in program effectiveness (Castro, Barrera, & Martinez, 2004).

However, adaptation can happen by inserting additional components to the original program and/or implementing the original components differently from previously prescribed (MacGraw et al., 1996). The additive adaptation has been reported to associate with program effectiveness and often happens in conditions of high fidelity (Berkel et al. 2011).

Child/Youth Development

Child/youth development provides youth workers with insights about positive youth development, which is a strength based approach of child/youth development. The latter is based on the principle that children/youth participation stimulates growth and development. In addition, youth establish mutual relationships with their surrounding world. However, these relationships need to be mutually beneficial for growth to occur. Therefore, children and youth should be provided with opportunities and appropriate structure to thrive.

Program Structures

The structure of programs is very important. An orderly learning environment is necessary for youth to develop positively (Eccles & Gootman, 2002). Structure helps with
categorizing program elements and practices (Pierce, 2010). A sequenced, active, focused, explicit (SAFE) program is the best predictor of positive effects on youth developmental outcomes (Granger, 2010). Greater structure leads to higher quality implementation (Walker, 2006). The greater the structure, the greater is youths’ life satisfaction (Gilman, 2001). However, program activities should be broken down into manageable, age-appropriate, and varied blocks of instruction (Walker, 2006). Appropriate structure supports skill-building activities, positive relationship development, and a sense of belonging, which result in the development of the five Cs of positive youth development-- competence, connection, confidence, character, caring, and contribution (Henderson et al., 2007; Blum, 2003; Roth & Brooks-Gunn, 2003).

Staff youth ratio may vary from program to program. However, research suggests 1 adult to 4 young people as staff-ratio average for any program (Henderson et al., 2007). A reasonable staff ratio can foster high quality adult-youth and peer relationships. Appropriate staff ratio gives youth a chance to receive appropriate attention—frequent and in depth interactions, which are the basis of positive youth development (Granger, 2010).

The program size can also potentially influence youth’s behaviors in youth development programs (Rorie et al., 2011). No specific size has, however, been found in the literature. Research has suggested that program size be kept as small as possible (Hellison & Cutforth’s, 1997). Small program size is essential for program effectiveness (Powell, 2003). In fact, young people who engage in structured activities achieve better outcomes than in unstructured activities (Mahoney et al., 2005).

Social Ecological Theory

Social ecological theory emphasizes the importance of interactions between youths and the real world. The lives of adolescents and children are tied with diverse peer groups including
friends, classmates, siblings, and neighborhood children (Guerra & Bradshaw, 2008). Their interactions occur across different social domains as they learn and grow. These social domains or systems are classified into mesosystem, exosystem, and chronosystem (Bronfenbrenner, 1986). The latter are respectively defined as family’s environment, outside of home environment, and the physiological changes that occur within individuals over time as they grow (Bronfenbrenner, 1986).

However, youth need to have abilities and adequate skills to navigate through these diverse social systems. They must learn how to develop and sustain positive and supportive relationships with people from different social ecological learning environments. They need to develop skills, competencies, moral beliefs, and self-confidence in order to become active participants in the modern culture (The McArthur Foundation, 2006). They need to be able to “work within social networks, pool knowledge within a collective intelligence, negotiate across cultural differences that shape the governing assumptions in different communities, and reconcile conflicting bits of data to form a coherent picture of the world around them” (The McArthur Foundation, 2006, p.20). These skills are necessary for youth to “participate fully in public, community, and economic life” (New London Group, 2000, p.9).

Therefore, youth workers need to understand relationships between individuals and settings (Foucault, 1970). Youth benefit from meaningful interactions. They experience a sense of growth and progress in developing skills and abilities when offered opportunities for meaningful interactions across the social systems (Connell, Gambone, & Smith, 2000).

Research has documented the importance of regulating the reciprocal relations between people and their diverse social environment to capitalize on youth’s potential for systematic change-- plasticity. The latter can be achieved by altering individual-ecology relationships
(Lerner et al., 2005). These relationships must be mutually advantageous for adaptive developmental regulations to emerge or occur (Lerner et al., 2005). These mutually advantageous relationships are the premise for a promising future distinguished by “positive contributions to self, family, community,” and the society as a whole (Lerner et al., 2005, p. 12).

In addition, youth developmental work should focus on improving the “fit between the capacities of youth and the assets” for healthy, thriving development that exist in their diverse social ecologies (Lerner et al, 2005, p.15). The potential for healthy, thriving development among youth can also be achieved by aligning their strengths with resources for positive development available in their divergent social ecologies, with the assumption that youth-asset relations can be shaped in distinct and yet successful ways by divergent youth and community contexts (Learner et al., 2005).

**Conclusions**

Researchers and practitioners have called for staff training for youth staff, which gives reasons to believe that staff training may impact or influence program quality. Staff training provides youth workers with the competency they need to support program quality. Staff training equips youth staff with knowledge and skills about program features, indicators, and implementation practices that stakeholders and researchers originally mutually agreed upon to bring about positive changes in the young people’s lives throughout their adolescence. The acquired competencies that can potentially influence program quality are summarized into four core competencies, which are program management, program theories, child/youth development, and social ecological theory.
Recommendations

Given the results of this study, the researchers propose the following model of staff training for program quality that can be used for both research purposes and professional development. From a research perspective, this staff training model should be studied to verify its structural validity. From a practice standpoint, it should be examined in terms of its real world applications (e.g., training design, cost effectiveness).

Figure 1. Norze-Cater Staff Training Model of youth development program quality.

Implications

This staff training model has several implications. First, it can be used to improve the outcomes of positive youth development programs such as afterschool and community based programs and camps for youth, and at the same time facilitate their evaluation. Second, it can be used to guide research in professional development for youth professionals. Third, it can be used
to guide future staff training and development for youth development program staff. Finally, it can be used by officials to enforce policies that support program quality.
CHAPTER 3.
EXAMINATION OF THE FACTORIAL STRUCTURE OF THE POSITIVE YOUTH DEVELOPMENT PROGRAM QUALITY COMPETENCY QUESTIONNAIRE USING RESPONSES FROM YOUTH DEVELOPMENT PROFESSIONALS ACROSS THE U.S.

Introduction

The Positive Youth Development Program Quality Competency Questionnaire (PYDPQCQ) is a research instrument that was designed with the intention to measure the beliefs of staff about program theory, program management, child/youth development, and social ecological theory with the purpose of designing a fit, comprehensive theoretical framework that would support program quality. Program quality, for the purpose of this study, is operationally defined as the mutual accord between stakeholders on program features and indicators that are supported by evidence-based implementation practices and research (Norze, 2017). Many practitioners are faced with the challenges of implementing quality programs (Hirsch, Mekinda, & Stawicki, 2010). Developing a staff training framework that supports program quality is crucial for the advancement of the positive youth development field, as a result. This staff training framework is relevant to practitioners in the field, and therefore, requires a field test and the establishment of face validity with the practitioners. Thereby, that is why the PYDPQCQ is developed to capture the practicality or application of this newly developed staff training framework.

Before developing the PYDPQCQ, similar existing instruments were examined. The use of existing instruments has many advantages in terms of the economy of time and reliability. However, most of the instruments that were reviewed are limited to a specific age group such as K-12 or K-8 and are designed to assess the implementation of specific aspects of program quality such as engagement, relationships, participation (sessions attended) program structure, indoor
and outdoor program environment, program content, and so forth (National Research Council and Institute of Medicine, 2002). In addition, they mostly consisted of two sections--observation and questionnaire. For instance, Youth Program Quality Instrument (YPQ) is designed to assess the implementation of a variety of settings whose participants are between grades 4 and 12 (The Forum of Youth Investment, 2009). Its assessment is more accurate when it involves observation of program activities. The PYDPQCQ does not involve observation of program offerings and only targets paid youth working practitioners who directly work with youth ranging from nine to nineteen years old. The primary goal of the PYDPQCQ is to measure the importance of a staff training model that guides professional development in the positive youth development area whereas the YPQ’s primary goal is to measure strengths and weakness of implementation practices.

The PYDPQCQ was developed using a theoretical framework of program quality. The items were generated consistently with what was found in the literature review in positive youth development. Most theoretical frameworks that address positive youth development program quality involve youth engagement and interaction, environmental safety (physical and psychological safety), program fidelity and change, and program structure. As a result, the newly developed instrument encompasses the variables program theory, program management, child/youth development, and social ecological theory that explain program quality. Youth development integrates numerous theories from psychology, sociology, public health, anthropology, and others that direct attention to individual development, community development, and cultural development processes (Eccles & Gootman, 2002). A review of frameworks grounded in theories of human development allow the researcher to understand that human development occurs through multiple processes including active creativity of youth,
thoughtful mentoring and management by others, acquisition of social capital and socialization into a culture (National Research Council and Institute of Medicine, 2002). A young person’s development is generally shaped by personal, program, organizational, and cultural factors (Bronfenbrenner & Morris, 2006; Steinberg, 2000; Steinberg & Morris, 2001). The revised theoretical framework highlights the importance of “good developmental, cultural, and personal fit,” and the role of programs can play in helping youth build social capital and positive experience in their life (Eccles & Gootman, 2002, p. 87; Bandura, 1989).

Objectives of the Study

The objectives that were developed to guide this research included:

1. To examine the factorial structure of the Positive Youth Development Program Quality Competency Questionnaire (PYDPQCQ) using responses from youth working practitioners in the U.S.

2. To confirm the factorial structure of the Positive Youth Development Program Quality Competency Questionnaire (PYDPQCQ) using responses from youth working practitioners in the U.S.

3. To assess the reliability of the Positive Youth Development Program Quality Competency Questionnaire (PYDPQCQ) using responses from youth working practitioners in the U.S.

Methods

This study used a cross-sectional design to assess structural validity of the Positive Youth Development Program Quality Competency Questionnaire (PYDPQCQ).
Population and Sample

Since the primary purpose of this study was to design an instrument to measure PYDPQCQ and establish the psychometric characteristics of this instrument, a sample of youth development professionals was used. The sample size was initially set using the 10-1 observation to item general practice recommendation (Hair, Black, Babin & Anderson, 2009; McCullum, Widaman, Zhang, & Hong, 1999). The minimum sample size needed was 570 subjects. A sample of 952 youth development professionals responded. For the purpose of this study, the sample was randomly split in two groups: group 1 (n = 520) and group 2 (n = 432). Group 1 data were used for the objective one analysis and group 2 data were used for the objective two analysis. All data were used for the objective three analysis.

Instrumentation

The instrument being developed in this study was designed to measure constructs associated with quality programming for the purpose of positive youth development. The instrument consisted of two sections. The first included items designed to measure the perceptions of youth development professional regarding six design constructs associated with quality programming for the purpose of positive youth development. These design constructs included: staff training importance; importance of training on program theory; program management; child/youth development; and social ecological theory. The second section of the questionnaire included items designed to measure the following personal and professional demographic characteristics: gender, age, race, ethnicity, years of experience, level of education, membership in selected organizations, and status (paid/volunteer staff). The demographics that were selected were those that were anticipated to have an influence on the quality programming for the purpose of positive youth development based on the previous research and other
literature. The questionnaire included 57 items that were selected/designed to measure the six design constructs that were generated following an extensive review of the related literature and a thorough analysis using the systematic review process (Lyberg et al., 1997).

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The questionnaire included 57 items that were selected/designed to measure the six design constructs that were generated following an extensive review of the related literature and a thorough analysis using the systematic review process (Lyberg et al., 1997). Each construct comprised no less than 5 items (Fabrigaret et al., 1999). Once the questionnaire was completely developed, it was submitted to three subject matter experts for face and content validity (Schriesheim et al., 1993). Their areas of expertise were youth development, program evaluation, and research.
**Staff Training Importance for program quality**: The purpose of this construct is to measure staff’s beliefs about program theory, program management, child/youth development, and social ecological theory as components of staff training. This construct is captured by six items. For example, “staff training enables me to use program theory in guiding my programming efforts.”

**Importance of training on child/youth development for program quality**: Child/youth development is defined as the process that prepares a developing person to meet challenges of his/her childhood and adolescence to become a competent, confident adult. The purpose of this construct is to measure staff’s belief that training on child/youth development is necessary for achieving youth program quality. This construct is captured by 13 items. For example, “I should recognize the importance of relationships for youth to grow and learn in order to have a quality program.”

**Importance of training on program theory for program quality**: Program theory is defined as the connections between the program assumptions and what actually occurs at “each small step along the way “of program implementation (Weiss, 2000, p.35). The purpose of this construct is to measure staff’s belief that training on program theory is necessary for achieving youth program quality. This construct consisted of 12 items. For example, “Program theory should be used to guide program changes.”

**Importance of training on program management for program quality**: Mutual planning and teaching to promote youth participation and engagement. The purpose of this construct is to measure staff’s belief that training on program management is necessary for achieving program quality. This construct was captured by 14 items. For example, “I should provide children and youth with experience of belonging in order to have a quality program.”
Importance of training on social ecological theory for program quality: Youth are nested within a multilevel system in which they develop mutual relationships, which are the basis of human development. The purpose of this construct is to measure staff’s belief that training on social ecological theory is necessary for achieving youth program quality. This is a 7-item scale construct. For example, “I should understand how families, schools, religions, communities, cultures, or societies in which a youth lives affect program quality.”

Staff collaboration or Staff Support System for PQ: The purpose of this construct is to capture the support system for youth staff conducive to program quality. This is captured by 5 items. For example, my “colleagues” are more likely to support me for program quality purposes.

Response Categories: A 6-point Likert-type scale was used to measure all the constructs except for staff collaboration. The latter was measured on a multiple choice scale, which was check all that apply (CATA). The remained constructs were assessed on the scale representing the level of agreement (strongly disagree=1, disagree=2, slightly disagree=3, slightly agree=4, agree=5, and strongly agree=6) of each youth working practitioners participating in this study about their beliefs about the components of the proposed staff training model.

Data Collection

The Positive Youth Development Program Quality Competency Questionnaire (PYDPQCQ) was administered nationally using Qualtrics (https://www.qualtrics.com/) online survey software. The participants were contacted directly using their email address from the websites of their affiliated institution. They received a link to the questionnaire including a consent form that was approved by the University Institutional Review Board (IRB). The participants were provided two options “yes” or “no” to choose. Those who chose “no” exited
the survey and those who chose “yes” proceeded to the survey. Up to three email follow ups were sent to those people who had not responded to the survey. The PYDPQCQ was a five minute questionnaire survey that was available for three weeks.

Data Analysis

Given the objectives of this study, first, an exploratory factor analysis (EFA) was used with responses in group 1 to identify the items that most clearly represented the domain of the underlying construct. The assumptions of sample adequacy, sufficiency of item correlation, and absence of multicollinearity among items were tested (Tabachnick & Fidell, 2013). An adequate sample size reduces the sampling error (Hair, Black, Babin, & Anderson, 2009). The sample size adequacy was assessed by contrasting the actual observation to item ratio to the 10-to 1- general practice and checking the extracted communalities range to make sure the minimum value was 0.5 (Hair, Black, Babin & Anderson, 2009; McCullum, Widaman, Zhang, & Hong, 1999). Next, KMO test and Bartlett’s test were used to determine whether the correlation among items was sufficient (KMO statistic greater than .60 and $p < .05$ for Bartlett’s test) to allow factor extraction (Tabachnick & Fidell, 2013). In addition, the absence of collinearity among items was determined by looking at whether the item correlation matrix comprised values that equaled or exceeded .90 and showing that the determinant exceeded zero (Field, 2009). Further, principal axis factor analysis (PAFA) was the appropriate method of extraction to use for the obtainment of the latent constructs (Tabachnick & Fidell, 2007). The PAFA was followed by oblique (promax) rotations to determine if associations exist since relationships between factors were expected. The number of factors to retain was based on the following three criteria: eigenvalues, parallel analysis, and the Scree test (Velicer & Jackson, 1990). Factors with eigenvalues equal to or greater than 1.0 were retained (Field, 2009). Parallel analysis with Monte Carlo permutation
of original raw data was used to ascertain the number of factors with a $p$-value lower than .05 (Velicer & Jackson, 1990). In the Scree test, the number of dots above the 95th percentile line represented the factors to retain. The analysis was conducted in SPSS version 24.

Once the model was specified, the researcher proceeded with confirmatory factor analysis (CFA) using the responses from group 2 to validate the factorial structure of the PYDPQCQ. The quality of the data was crucial for the accuracy of the research findings. Therefore, first, missing data were checked by running frequency analysis. If the latter was present and greater than 5%, their patterns were assessed (Tabachnick & Fidell, 2013). If the pattern was identified as missing not at random (MNAR), the model was estimated using full information maximum likelihood (Raykov, 2005). Missing data were coded as 999. Second, univariate and multivariate outliers were assessed. Mean scores were computed for each construct. Any values greater than $\pm 3.29$ standard deviations (SD) (two-tailed; $p < .001$) of the mean were considered univariate outliers (Tabachnick & Fidell, 2013). Mahalanobis distance greater than the critical chi-square value of 22.458 ($p < .001$) were considered multivariate outliers (Tabachnick & Fidell, 2013). The researchers examined the fitness of the model running the absolute fit (Root-Mean-Square-Error of Approximation), comparative fit (Comparative-Fit-Index and Tucker-Lewis Index), and parsimonious fit (Parsimonious Fit Index). These indices were chosen based of their insensitivity to sample size, model misspecification, and parameter estimates (Hooper, Coughlan, & Mullen, 2008). Root-Mean-Square-Error of Approximation (RMSEA) values equal to or lower than .06 indicated a good model fit (Hu & Butler, 1999). Geiser (2013) and Steiger (1990) suggested a cutoff value of .05 for RMSEA to indicate excellent fit to the data. The values of Comparative fit Index (CFI) and Tucker Lewis Index (TLI) that were higher than .95 were widely accepted as a good fit to the data (Hu & Bentler, 1999; Hu & Kelloway, 1999). Parsimonious fit was
considered comparing two rival models to ascertain which one provided a better fit to the data (Kelloway, 2015). The model with fewer parameters and more degrees of freedom, the simpler model, was generally the one that provided better fit to the data (Kline, 2005; West, Taylor, & Wu, 2012). This analysis was run in Mplus version 7.31.

Finally, the quality of the structural reliability of the PYDPQCQ was assessed using point estimation of composite reliability (Raykov, 2009). The point estimate reliability ranged from 0 to 1. This point estimate was computed along with a 90% confidence interval. The latter captured a better range of likely reliability point estimates in the population (Raykov, 2009). Data were analyzed in Mplus version 7.31.

**Results**

This section presents the results of the exploratory factor analysis conducted in SPSS to uncover the underlying structure of the items of each construct and the results of the confirmatory factor analysis conducted in Mplus verifying the factorial structure of the suggested model.

**Objective One**

This analysis was performed with the objective of examining the factorial structure of the Positive Youth Development Program Quality Competency Questionnaire (PYDPQCQ) using responses from youth working practitioners in the U.S. A principal axis factor analysis was conducted on the sample 1 group (n = 520) with oblique rotation (promax).

The assumptions on which the principal axis factor analysis relies were checked. First, the sampling adequacy for the analysis was verified computing the response-item ratio (10:1) and extracted communalities ($M = .65$, $Mdn = 0.65$; $h^2$). An adequate sample for exploratory factor analysis requires at least 10 responses per item (10:1) and communalities averaging .50 in
sample size greater than 300 are acceptable (Gorsuch, 1983; Hatcher, 1994; MacCallum, Widaman, Zhang, & Hong, 1999). With lower communalities a larger the sample size is required. Second, the presence of sufficient correlations among items was determined using Kaiser-Mayer-Olkin and Barlett’s test. The resulting KMO (.94) was well above the acceptable limit of .6 and Bartlett’s test of sphericity was significant, $\chi^2 (861) = 16406.71, p < .001$ (Tabachnick & Fidell, 2013). Third, the absence of excessive Multicollinearity was determined. The correlation matrix presented values ranging from .09 to .894 and the determinant equaled to $1.262E-16$. Closer interpretation of item correlations suggested that multicollinearity maybe an issue for two items (Tabachnick & Fidell, 2013). However, the decision was made to keep the items for further examination during confirmatory factor analysis.

An initial analysis was run to obtain eigenvalues for each factor in the data. The latter comprised in total 52 items originally. The analysis resulted in fifty two factors, but only seven factors had Eigenvalues greater than 1 (Kaiser, 1960), which in combination explained 62.31% of the total variance. Next, the loadings were gauged according to procedure proposed by Stevens (2002) to decide which items made up which factors. The items that had loadings less than .4 were removed from the analysis as well as the cross-loaded items. Items that cross-loaded at .2 and .2 on two factors or .3 on a single factor in addition to a low loading in the .4 range were removed. After six iterations, six factors with items containing substantive or significant loadings (values greater than .4) were finally retained. The identified factors were labeled as follows: Factor 1 represented program theory; factor 2 represented child youth development; factor 3 represented staff training; factor 4 represented social ecological theory; factor 5 represented program management-environment, and factor 6 represented program management-engagement. As can be seen in table 1, Factor 1, program theory, explained 38.66 % of the
variance representing the largest variation explained whereas factor 6, program management-engagement, explained the lowest percentage (2.30%) of the variance. Overall, the six factors or latent variables retained explained 64.64% of the total variance.

Table 1. Extracted eigenvalues, percentage of variance, and rotated model of the principal axis factor analysis of the PYD Program Quality scale.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Extracted Eigen Values</th>
<th>% of Variance</th>
<th>Rotated Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Theory (Factor 1)</td>
<td>16.238</td>
<td>38.661</td>
<td>13.048</td>
</tr>
<tr>
<td>Child Youth Development (Factor 2)</td>
<td>3.839</td>
<td>9.141</td>
<td>12.282</td>
</tr>
<tr>
<td>Staff Training (Factor 3)</td>
<td>2.879</td>
<td>6.854</td>
<td>7.311</td>
</tr>
<tr>
<td>Social Ecological Theory (Factor 4)</td>
<td>1.797</td>
<td>4.278</td>
<td>9.997</td>
</tr>
<tr>
<td>Program Management-Environment (Factor 5)</td>
<td>1.429</td>
<td>3.403</td>
<td>7.503</td>
</tr>
<tr>
<td>Program Management-Engagement (Factor 6)</td>
<td>.967</td>
<td>2.302</td>
<td>8.614</td>
</tr>
</tbody>
</table>

*Note:* Extraction method was promax.

To further assess the viability of six factor solution, a parallel analysis was run in SPSS. Research has suggested that parallel analysis (PA) is among the most accurate available statistical techniques to determine the number of factors to retain in an exploratory factor analysis (Humphreys & Montanelli, 1975; Zwick & Velicer, 1986). Table 2 shows that only six eigenvalues or factors from the original raw data were above the 95th percentile estimates generated by the Monte Carlo simulation. Factors that exceeded the 95th percentile eigenvalues from the Monte Carlo simulation were retained.
Table 2. Raw Data Eigenvalues, Fiftieth Percentile Random Data Eigenvalue, Ninety-Fifth Percentile Random Data Eigenvalue of Parallel Analysis of the PYD Program Quality Scale.

<table>
<thead>
<tr>
<th>Factors</th>
<th>Raw Data Eigenvalue</th>
<th>Fiftieth Percentile Random Data Eigenvalue</th>
<th>Ninety-Fifth Percentile Random Data Eigenvalue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1*</td>
<td>16.279898</td>
<td>.719295</td>
<td>.791774</td>
</tr>
<tr>
<td>2*</td>
<td>3.884329</td>
<td>.651184</td>
<td>.704139</td>
</tr>
<tr>
<td>3*</td>
<td>2.942530</td>
<td>.597781</td>
<td>.645127</td>
</tr>
<tr>
<td>4*</td>
<td>1.803680</td>
<td>.552389</td>
<td>.594397</td>
</tr>
<tr>
<td>5*</td>
<td>1.449851</td>
<td>.512306</td>
<td>.553578</td>
</tr>
<tr>
<td>6*</td>
<td>1.017214</td>
<td>.474412</td>
<td>.510892</td>
</tr>
<tr>
<td>7</td>
<td>.538747</td>
<td>.440429</td>
<td>.475811</td>
</tr>
<tr>
<td>8</td>
<td>.495616</td>
<td>.407465</td>
<td>.442018</td>
</tr>
<tr>
<td>9</td>
<td>.454643</td>
<td>.374563</td>
<td>.406517</td>
</tr>
<tr>
<td>10</td>
<td>.351442</td>
<td>.345061</td>
<td>.376224</td>
</tr>
<tr>
<td>11</td>
<td>.298024</td>
<td>.315944</td>
<td>.346252</td>
</tr>
<tr>
<td>12</td>
<td>.265854</td>
<td>.288428</td>
<td>.316390</td>
</tr>
<tr>
<td>13</td>
<td>.212288</td>
<td>.260741</td>
<td>.289391</td>
</tr>
<tr>
<td>14</td>
<td>.190361</td>
<td>.234000</td>
<td>.262658</td>
</tr>
<tr>
<td>15</td>
<td>.138865</td>
<td>.209039</td>
<td>.234901</td>
</tr>
<tr>
<td>16</td>
<td>.104363</td>
<td>.183941</td>
<td>.208340</td>
</tr>
<tr>
<td>17</td>
<td>.099605</td>
<td>.160884</td>
<td>.186248</td>
</tr>
<tr>
<td>18</td>
<td>.086833</td>
<td>.137124</td>
<td>.158312</td>
</tr>
<tr>
<td>19</td>
<td>.067780</td>
<td>.113448</td>
<td>.136779</td>
</tr>
<tr>
<td>20</td>
<td>.042679</td>
<td>.090101</td>
<td>.111901</td>
</tr>
<tr>
<td>21</td>
<td>.032001</td>
<td>.068100</td>
<td>.090026</td>
</tr>
<tr>
<td>22</td>
<td>.019779</td>
<td>.045927</td>
<td>.067798</td>
</tr>
<tr>
<td>23</td>
<td>-.014532</td>
<td>.024304</td>
<td>.045184</td>
</tr>
<tr>
<td>24</td>
<td>-.022048</td>
<td>.002578</td>
<td>.022832</td>
</tr>
<tr>
<td>25</td>
<td>-.033898</td>
<td>-.018516</td>
<td>.001153</td>
</tr>
<tr>
<td>26</td>
<td>-.037563</td>
<td>-.039528</td>
<td>-.019505</td>
</tr>
<tr>
<td>27</td>
<td>-.046111</td>
<td>-.059505</td>
<td>-.039524</td>
</tr>
<tr>
<td>28</td>
<td>-.054547</td>
<td>-.080020</td>
<td>-.060986</td>
</tr>
<tr>
<td>29</td>
<td>-.062082</td>
<td>-.100683</td>
<td>-.081621</td>
</tr>
<tr>
<td>30</td>
<td>-.067563</td>
<td>-.120654</td>
<td>-.102924</td>
</tr>
<tr>
<td>31</td>
<td>-.071715</td>
<td>-.140660</td>
<td>-.121353</td>
</tr>
</tbody>
</table>

Note: p < .05

In addition, the scree plot generated by the parallel analysis was examined to ascertain the number of factors to retain. Figure 1 shows clearly six latent dimensions or factors above the 95th percentile line cutting the screeplot. “Factors above the 95th percentile line generated by
simulations were considered beyond chance” (Wood, Gnonhosou, & Bowling, 2015, p.2). As illustrated, the PA findings were consistent with those of the principal axis factor analysis.

![Figure 1: Screeplot of eigenvalues derived from the data resulting from principal axis factor analysis with means and 95th percentile from the Parallel Analysis.](image)

Presented in Table 3 are the factor pattern and structure of loadings and the extracted communalities for each variable forming the underlying factors of the newly developed research instrument—Positive Youth Development Program Quality Competency Questionnaire (PYDPQCQ). The first factor “program theory” did not lose any of its items during the analysis because all of them presented significant loadings ranging from .75 to .94 and no cross-loadings of .30 or above.

The second factor “child youth development” had four items that were removed from the analysis. The item “I should provide children and youth with opportunities for skill building in order to have a quality program” did not load significantly on any factor (loading below .4). The
item” I should be able to develop genuine relationships with children and youth in order to have a quality program,” was suppressed because it had factor loadings between .48 and .31 on both “child youth development” and “staff training”. The item “I should be able to offer youth with meaningful interactions with the social systems in order to have a quality program,” had factor loadings between .35 and .41 on both “child youth development” and “staff training”. The item “I should understand the personality of each adolescent in order to have a quality program” had factor loadings between .41 and .40 on both “child youth development” and “staff training”. As a result, nine items were retained.

The third factor “staff training” had all its initial items (n = 6) with significant factor loadings (above .4) and no cross-loaded items. Therefore, none of them were suppressed during the analysis. The fourth factor “social ecological theory” had only one of its items removed. The item “I should provide appropriate, specific feedback to program participants in order to have a quality program” had its highest (.25) loading on this factor; it did not load significantly (below .4) on any of the factors.

The factor “program management” was conceptualized as a single factor of 14 items. After the first round of analysis, the item “I should discuss my program implementation plan with colleagues for input in order to have a quality program” crossed loaded on multiple factors and therefore was removed. The items “I should involve children and youth in the planning and implementation of the program in order to have a quality” was also removed after the second round because it did not load significantly on any factors. The item “I should be responsive to children and youth individual needs in order to have a quality program” was suppressed after the third round of analysis for cross-loading. The items “I should possess the skills to assess the diverse challenges I face at work in order to have a quality program” and “I should possess the
skills to respond to the diverse challenges I face at work in order to have a quality program” were also eliminated after the fourth round of analysis for cross-loading. At this point, two clear factors, program management-environment and program management-engagement, emerged from the analysis. The factor “program management-environment” was made up of five items and ranked 5th among the factors. The factor “program management-engagement” ended up with four items and ranked 6th. Overall, ten items were removed from the analysis. The remaining 42 items are presented in Table 3.

Table 3. Pattern matrix, structure matrix, and extracted communalities ($h^2$) based on a principle axis factoring analysis with promax rotation for the items of PYD Program Quality Scale (N = 520)

<table>
<thead>
<tr>
<th>Item</th>
<th>Pattern Matrix</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Theory has to be used to achieve the desired program outcomes</td>
<td>.938</td>
<td>-.056</td>
<td>-.010</td>
<td>-.087</td>
<td>.001</td>
<td>.014</td>
<td>.864</td>
</tr>
<tr>
<td>Program theory should be used to develop a program plan</td>
<td>.887</td>
<td>-.031</td>
<td>-.034</td>
<td>.042</td>
<td>-.060</td>
<td>.035</td>
<td>.862</td>
</tr>
<tr>
<td>Program theory should be used to build logical connections among program activities, available resources, and desired outcomes</td>
<td>.884</td>
<td>-.071</td>
<td>-.014</td>
<td>.003</td>
<td>-.041</td>
<td>.064</td>
<td>.843</td>
</tr>
<tr>
<td>Program theory should be used to guide program changes</td>
<td>.862</td>
<td>-.024</td>
<td>-.026</td>
<td>-.090</td>
<td>.075</td>
<td>.027</td>
<td>.835</td>
</tr>
<tr>
<td>Program theory should be used to design activities that support the program goals</td>
<td>.860</td>
<td>-.037</td>
<td>.019</td>
<td>.030</td>
<td>-.056</td>
<td>.057</td>
<td>.857</td>
</tr>
</tbody>
</table>

(Cont’d)
<table>
<thead>
<tr>
<th>Item</th>
<th>Pattern Matrix</th>
<th>Structure Matrix</th>
<th>$h^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program theory should be used to carry out a program plan as designed</td>
<td>0.851</td>
<td>.024</td>
<td>.008</td>
</tr>
<tr>
<td>Program theory should be used to determine the program activities that are essential to attain the program objectives</td>
<td>0.828</td>
<td>.037</td>
<td>.024</td>
</tr>
<tr>
<td>Program theory should be used to guide program implementation</td>
<td>0.791</td>
<td>.059</td>
<td>-.002</td>
</tr>
<tr>
<td>Program theory should be used to preserve key program activities associated with the success of a program</td>
<td>0.789</td>
<td>.028</td>
<td>-.010</td>
</tr>
<tr>
<td>Program theory is necessary to understand why programs should be conducted as designed</td>
<td>0.755</td>
<td>.168</td>
<td>.049</td>
</tr>
<tr>
<td>Program theory should be used to identify program activities that can be changed without affecting the intended outcomes of the programs</td>
<td>0.747</td>
<td>.019</td>
<td>.027</td>
</tr>
<tr>
<td>Program theory should be used to identify a set of activities that account for behavior</td>
<td>0.745</td>
<td>.032</td>
<td>.022</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Child Youth Development</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>I should understand the positive youth development core competencies youth need to become successful adults in order to have a quality program</td>
<td>-.016</td>
<td>.879</td>
<td>.020</td>
<td>-.025</td>
<td>-.071</td>
<td>-.019</td>
</tr>
</tbody>
</table>

(Cont’d)
<table>
<thead>
<tr>
<th>Item</th>
<th>Pattern Matrix</th>
<th>Structure Matrix</th>
</tr>
</thead>
<tbody>
<tr>
<td>I should be able to teach the positive youth \development core \competencies in order to have a quality program</td>
<td>.004 .817</td>
<td>.044 .047 .015-.168</td>
</tr>
<tr>
<td>I should understand the \developmental stages of children and youth in order to have a quality program</td>
<td>.054 .800</td>
<td>-.015 -.074 -.114 .021</td>
</tr>
<tr>
<td>I should use educational curriculum that is aligned with child and youth developmental stages in order to have a quality program</td>
<td>.071 .776</td>
<td>.022 -.078 .037 .098</td>
</tr>
<tr>
<td>I should understand that developmental stage appropriate structures are necessary for healthy development of children and youth in order to have a quality program</td>
<td>.039 .738</td>
<td>.006 .062 .024 -.010</td>
</tr>
<tr>
<td>I should possess a basic understanding of positive youth development in order to have a quality program</td>
<td>.070 .671</td>
<td>-.035 -.114 .008 .102</td>
</tr>
<tr>
<td>I should recognize the importance of relationships for youth to grow and learn in order to have a quality program</td>
<td>-.007 .647</td>
<td>-.022 .066 .046 .093</td>
</tr>
<tr>
<td>I should understand that age appropriate structures are necessary for children and youth healthy development in order to have a quality program</td>
<td>-.028 .651</td>
<td>-.046 .093 .043 .075</td>
</tr>
<tr>
<td>I should understand the learning styles of children and youth in order to have a program</td>
<td>-.042 .588</td>
<td>.001 .132 .063 .057</td>
</tr>
</tbody>
</table>

(Cont’d)
<table>
<thead>
<tr>
<th>Item</th>
<th>Pattern Matrix</th>
<th>Structure Matrix</th>
<th>h²</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Staff Training</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff training facilitates my understanding of child/youth development</td>
<td>-.092</td>
<td>.074</td>
<td>.841</td>
</tr>
<tr>
<td>Staff training enables me to use social ecological theory to deliver a quality program</td>
<td>.048</td>
<td>-.083</td>
<td>.832</td>
</tr>
<tr>
<td><strong>Staff training facilitates my understanding of social ecological theory</strong></td>
<td>.050</td>
<td>-.074</td>
<td>.819</td>
</tr>
<tr>
<td>Staff training enables me to use a positive youth development approach to achieve a quality program</td>
<td>-.003</td>
<td>.061</td>
<td>.804</td>
</tr>
<tr>
<td>Staff training enables me to manage my program in ways that foster youth participation and engagement</td>
<td>-.030</td>
<td>.031</td>
<td>.787</td>
</tr>
<tr>
<td>Staff training enables me to use program theory in guiding my programming efforts</td>
<td>.072</td>
<td>.001</td>
<td>.758</td>
</tr>
<tr>
<td><strong>Social Ecological Theory</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I should support the integration of a community in my program in order to have a quality program</td>
<td>.011</td>
<td>-.050</td>
<td>-.021</td>
</tr>
<tr>
<td>I should support the integration of schools in my program in order to have a quality program</td>
<td>-.055</td>
<td>-.003</td>
<td>.052</td>
</tr>
<tr>
<td>I should support the integration of a family in my program in order to have a quality program</td>
<td>-.031</td>
<td>-.033</td>
<td>.034</td>
</tr>
</tbody>
</table>

(cont’d)
<table>
<thead>
<tr>
<th>Item</th>
<th>Pattern Matrix</th>
<th>Structure Matrix</th>
<th>$h^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>I should understand how families, schools, religions, communities, cultures, or societies shape a youth’s development in order to have a quality program</td>
<td>.092 .041 -.073</td>
<td>.711 -.034 .067</td>
<td>.777 .617</td>
</tr>
<tr>
<td>I should understand how families, schools, religions, communities, cultures, or societies in which a youth lives affect program quality</td>
<td>.043 .005 -.038</td>
<td>.674 .013 .070</td>
<td>.734 .545</td>
</tr>
<tr>
<td>I should design activities that provide children and youth the skills they need to successfully navigate through multiple environments in order to have a quality program</td>
<td>-.020 .077 .055</td>
<td>.507 .017 .206</td>
<td>.701 .767</td>
</tr>
<tr>
<td>Program Management-Environment</td>
<td>1   2   3   4   5   6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I should share limits with children and youth on acceptable behaviors in order to have a quality program</td>
<td>-.029 -.019 -.047 -.030</td>
<td>.825 .077</td>
<td>.815 .711</td>
</tr>
<tr>
<td>I should set rules for children and youth to follow in order to have a quality program</td>
<td>-.068 -.101 .106 .007</td>
<td>.776 -.073</td>
<td>.699 .533</td>
</tr>
<tr>
<td>I should share expectations with children and youth on acceptable behaviors in order to have a quality program</td>
<td>.050 .077 -.089 -.046</td>
<td>.770 .106</td>
<td>.83 .6</td>
</tr>
<tr>
<td>I should share norms with children and youth on acceptable behaviors in order to have a quality program</td>
<td>.040 -.030 .012 .052</td>
<td>.749 -.018</td>
<td>.772 .515</td>
</tr>
</tbody>
</table>

(cont’d)
I should have a plan that I follow for each class that I conduct with children and youth in order to have a quality program

<table>
<thead>
<tr>
<th>Item</th>
<th>Pattern Matrix</th>
<th>Structure Matrix</th>
<th>h²</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.042</td>
<td>.130</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.040</td>
<td>.137</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.462</td>
<td>-.088</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.576</td>
<td>.671</td>
<td></td>
</tr>
</tbody>
</table>

Program Management-Engagement

<table>
<thead>
<tr>
<th>I should support children and youth’s experience of belonging in order to have a quality program</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.055</td>
<td>-.019</td>
<td>.002</td>
<td>-.031</td>
<td>.071</td>
<td>.875</td>
<td>.901</td>
<td>.629</td>
</tr>
</tbody>
</table>

I should provide children and youth with experience of belonging in order to have a quality program

<table>
<thead>
<tr>
<th>I should provide children and youth with experience of empowerment in order to have a quality program</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-.042</td>
<td>.059</td>
<td>.007</td>
<td>.206</td>
<td>-.107</td>
<td>.678</td>
<td>.774</td>
<td>.631</td>
</tr>
</tbody>
</table>

I should support children and youth’s experience of empowerment in order to have a quality program

<table>
<thead>
<tr>
<th>I should provide children and youth with experience of empowerment in order to have a quality program</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-.038</td>
<td>.083</td>
<td>.029</td>
<td>.155</td>
<td>-.068</td>
<td>.676</td>
<td>.781</td>
<td>.375</td>
</tr>
</tbody>
</table>

Composite scores were created for each of the six factors with the mean of items that had their primary loadings on each factor. Higher mean values indicated greater levels of agreement with the items in a construct in relation to overall program quality. Table 4 showed that the “child youth development” construct had the greatest mean value (M = 5.31, SD = .63) among the six program quality factors that emerged. Whereas the “staff training implementation” construct had the lowest mean value (M = 4.47, SD = .93). This means that most participants agreed that the constructs were important to measure the underlying structure of the program quality scale factors.
Table 4. Descriptive statistics for the six PYD Program Quality Scale factors (N = 520)

<table>
<thead>
<tr>
<th>Factors</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Youth Development</td>
<td>519</td>
<td>5.31</td>
<td>0.63</td>
</tr>
<tr>
<td>Program Management-Environment</td>
<td>513</td>
<td>5.30</td>
<td>0.70</td>
</tr>
<tr>
<td>Program Management-Engagement</td>
<td>514</td>
<td>5.11</td>
<td>0.72</td>
</tr>
<tr>
<td>Social Ecological Theory</td>
<td>509</td>
<td>5.08</td>
<td>0.71</td>
</tr>
<tr>
<td>Program Theory</td>
<td>516</td>
<td>4.70</td>
<td>0.75</td>
</tr>
<tr>
<td>Staff Training</td>
<td>517</td>
<td>4.47</td>
<td>0.93</td>
</tr>
</tbody>
</table>

Note: Interpretation scale: strongly disagree: 1-1.49; disagree: 1-2.4; slightly disagree: 2.5-3.49; slightly agree: 3.5-4.49; agree: 4.5-5.49; strongly agree: 5.5-6.0.

Table 5 presents the mean values of the individual items that primarily loaded on each of the factors retained for the analysis. Higher mean values indicated greater levels of agreement on an item. The mean values of the six items comprising the construct “staff training” ranged from 3.97 to 4.86. As can be seen in the Table 5, the mean values fell in two interpretive categories: 3.5-4.49 (slightly agree) and 4.5-5.49 (agree). Four of the items had mean values varied between 4.5 and 5.49 and only two of them had mean values ranging from 3.5 to 4.49.

In general, the items of the “child youth development” construct had higher levels of agreement than those of the “staff training”. The items’ mean values ranged from 4.96 to 5.59. They fell within the interpretive categories 4.5 – 5.49 (agree) and 5.5 – 6 (strongly agree) of the interpretation scale. However, only the item “I should possess a basic understanding of positive youth development in order to have a quality program” fell in the strongly agree category. The remaining eight items fell in the agree scale (M = 4.5 – 5.49) explaining the importance of the items for program quality.

The program theory construct comprised twelve items with mean values ranging from 4.56 to 4.84. All these mean values fell within the agree category (M = 4.5 – 5.49) suggesting that the study participants felt similarly about the items. Based on the interpretative scale, they
all agreed that these items were important to measure program theory. The item “program theory should be used to design activities that support the program goals” had the highest mean value whereas the item “program theory is necessary to understand why programs should be conducted as designed” presented the lowest mean value.

The social ecological theory construct contained six items with mean values ranging from 4.80 to 5.24. The latter mean corresponded to the item “I should design activities that provide children and youth the skills they need to successfully navigate through multiple environments in order to have a quality program” whereas the former mean belongs to the item “I should support the integration of schools in my program in order to have a quality program.” The mean values fell within the agree category ($M = 4.5 – 5.49$) suggesting the participants agreed that the items of the social ecological theory construct was important.

The program management-environment construct encompassed five items with mean values ranging from 4.93 to 5.39. The item: “I should have a plan that I follow for each class that I conduct with children and youth in order to have a quality program” had the lowest mean value ($M = 4.93, SD = .98$) and the item “I should share expectations with children and youth on acceptable behaviors in order to have a quality program” had the highest mean values ($M = 5.93, SD = .75$). All mean values of the items fell within the agree scale ($M = 4.5 – 5.49$). The study participants agreed that the five items of “program management II” were important.

Finally, the last construct of the instrument, program management-engagement, consisted of four items of significant loadings. These variables had mean values varying from 5.17 to 5.44. The item “I should provide children and youth with experience of empowerment in order to have a quality program” had the lowest mean value ($M = 5.17, SD = .83$) whereas the item “I should support children and youth’s experience of belonging in order to have a quality program” had the
highest mean value \((M = 5.44, SD = .76)\). As can be seen in table 5, the mean values of the items corresponded to the agree scale \((M = 4.5-5.49)\) suggesting they were important items.

Overall, the mean values of all the items ranged from 3.97 – 5.59 suggesting that the responses of the participants of the study varying from slightly agree to strongly agree on the importance of the items measuring the quality of positive development programs.

Table 5. Descriptive statistics for the subscale items of PYD Program Quality Scale factors (\(N = 520\))

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Staff Training</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff training enables me to use a positive youth development approach to achieve a quality program</td>
<td>516</td>
<td>4.86</td>
<td>0.96</td>
</tr>
<tr>
<td>Staff training enables me to manage my program in ways that foster youth participation and engagement</td>
<td>516</td>
<td>4.72</td>
<td>1.01</td>
</tr>
<tr>
<td>Staff training facilitates my understanding of child/youth development</td>
<td>517</td>
<td>4.69</td>
<td>1.02</td>
</tr>
<tr>
<td>Staff training enables me to use program theory in guiding my programming efforts</td>
<td>517</td>
<td>4.56</td>
<td>1.06</td>
</tr>
<tr>
<td>Staff training facilitates my understanding of social ecological theory</td>
<td>514</td>
<td>4.02</td>
<td>1.22</td>
</tr>
<tr>
<td>Staff training enables me to use social ecological theory to deliver a quality program</td>
<td>516</td>
<td>3.97</td>
<td>1.24</td>
</tr>
<tr>
<td><strong>Child Youth Development</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I should possess a basic understanding of positive youth development in order to have a quality program</td>
<td>519</td>
<td>5.59</td>
<td>0.67</td>
</tr>
<tr>
<td>I should understand the developmental stages of children and youth in order to have a quality program</td>
<td>519</td>
<td>5.47</td>
<td>0.73</td>
</tr>
<tr>
<td>I should recognize the importance of relationships for youth to grow and learn in order to have a quality program</td>
<td>518</td>
<td>5.46</td>
<td>0.71</td>
</tr>
<tr>
<td>I should understand that age appropriate structures are necessary for children and youth healthy development in order to have a quality program</td>
<td>517</td>
<td>5.33</td>
<td>0.75</td>
</tr>
<tr>
<td>I should understand the learning styles of children and youth in order to have a program</td>
<td>517</td>
<td>5.30</td>
<td>0.78</td>
</tr>
<tr>
<td>I should use educational curriculum that is aligned with child and youth developmental stages in order to have a quality program</td>
<td>518</td>
<td>5.27</td>
<td>0.87</td>
</tr>
</tbody>
</table>

(Cont’d)
<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>I should understand the positive youth development core competencies youth need to become successful adults in order to have a quality program</td>
<td>519</td>
<td>5.25</td>
<td>0.84</td>
</tr>
<tr>
<td>I should understand that developmental stage appropriate structures are necessary for healthy development of children and youth in order to have a quality program</td>
<td>518</td>
<td>5.19</td>
<td>0.81</td>
</tr>
<tr>
<td>I should be able to teach the positive youth development core competencies in order to have a quality program</td>
<td>518</td>
<td>4.96</td>
<td>0.94</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Program Theory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program theory should be used to design activities that support the program goals</td>
</tr>
<tr>
<td>Program theory should be used to build logical connections among program activities, available resources, and desired outcomes</td>
</tr>
<tr>
<td>Program theory should be used to develop a program plan</td>
</tr>
<tr>
<td>Program theory should be used to determine the program activities that are essential to attain the program objectives</td>
</tr>
<tr>
<td>Program theory should be used to achieve the desired program outcomes</td>
</tr>
<tr>
<td>Program theory should be used to preserve key program activities associated with the success of a program</td>
</tr>
<tr>
<td>Program theory should be used to identify program activities that can be changed without affecting the intended outcomes of the programs</td>
</tr>
<tr>
<td>Program theory should be used to guide program implementation</td>
</tr>
<tr>
<td>Program theory should be used to guide program changes</td>
</tr>
<tr>
<td>Program theory should be used to carry out a program plan as designed</td>
</tr>
<tr>
<td>Program theory should be used to identify a set of activities that account for behavior</td>
</tr>
<tr>
<td>Program theory is necessary to understand why programs should be conducted as designed</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social Ecological Theory</th>
</tr>
</thead>
<tbody>
<tr>
<td>I should design activities that provide children and youth the skills they need to successfully navigate through multiple environments in order to have a quality program</td>
</tr>
<tr>
<td>I should understand how families, schools, religions, communities, cultures, or societies in which a youth lives affect program quality</td>
</tr>
</tbody>
</table>

(Cont’d)
I should understand how families, schools, religions, communities, cultures, or societies shape a youth’s development in order to have a quality program

I should support the integration of a community in my program in order to have a quality program

I should support the integration of a family in my program in order to have a quality program

I should support the integration of schools in my program in order to have a quality program

Program Management-Environment

I should share expectations with children and youth on acceptable behaviors in order to have a quality program

I should share limits with children and youth on acceptable behaviors in order to have a quality program

I should share norms with children and youth on acceptable behaviors in order to have a quality program

I should set rules for children and youth to follow in order to have a quality program

I should have a plan that I follow for each class that I conduct with children and youth in order to have a quality program

Program Management-Engagement

I should support children and youth’s experience of belonging in order to have a quality program

I should provide children and youth with experience of belonging in order to have a quality program

I should support children and youth’s experience of empowerment in order to have a quality program

I should provide children and youth with experience of empowerment in order to have a quality program

Objective Two

The purpose of this analysis was to verify the factorial structure of the Positive Youth Development Program Quality Competency Questionnaire (PYDPQCQ) using responses from youth working practitioners in the U.S. The exploratory factor analysis generated a six factor model. The latter model included the factors labeled as program theory, child youth development, staff training, program management-environment, and program management-
engagement. To confirm the factorial structure of the hypothesized model, a confirmatory factor analysis (CFA) was conducted.

Prior to conducting the CFA, the normality assumption was examined and found to be violated. Thus, a robust statistical technique, weighted least squares with mean and variance adjustment (WLSMV), was used for the confirmatory analysis (Muthen & Muthen, 2001). Additionally, 4 multivariate and 13 univariate outliers were detected when the data were assessed for outliers. These analyses were performed on the group 2 data. As a result, the CFA was conducted with and without the outliers in the dataset for comparison. The results showed that the outliers did not substantially influence the analysis. The fitness of the model was not substantially improved when excluding the outliers from the analysis. Therefore, Table 6 only reports the results of the CFA conducted on the group 2 data with the outliers included. The first measure of fit was the likelihood ratio chi-square statistic. The values ($\chi^2 (804) = 2491.85$) of chi-square was statistically significant at <.001 level. Since this measure is highly sensitive to sample size and violation of distribution assumptions, other measures were also examined. The root mean square error of approximation (RMSEA) met the cutoff criterion of .06 suggested by Hu and Bentler (1999) to indicate a good fit to the data. Additionally, the comparative fit index and Tucker-Lewis Index exceeded the minimum cutoff criterion of .95 suggesting a good fit to the data (Hu & Bentler, 1999). The resulting fit indices suggest that the hypothesized model was tenable (see Table 6).

Table 6. Goodness of fit indicators for a 6-factor confirmatory model of PYD Program Quality scale

<table>
<thead>
<tr>
<th>Model Fit Information</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square ($\chi^2$)</td>
<td>2173.477</td>
</tr>
<tr>
<td>Degrees of freedom</td>
<td>804</td>
</tr>
<tr>
<td>Significance level</td>
<td>.000</td>
</tr>
</tbody>
</table>

(cont’d)
### Model Fit Information

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Root mean square error of approximation (RMSEA)</td>
<td>0.063</td>
</tr>
<tr>
<td>Comparative fit index (CFI)</td>
<td>0.971</td>
</tr>
<tr>
<td>Tucker-Lewis index (TLI)</td>
<td>0.969</td>
</tr>
</tbody>
</table>

### Baseline Model

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square ((\chi^2))</td>
<td>48054.601</td>
</tr>
<tr>
<td>Degrees of freedom</td>
<td>861</td>
</tr>
<tr>
<td>Significance level</td>
<td>0.000</td>
</tr>
</tbody>
</table>

The indicator factor loadings of the variables were examined for statistical significance \((p < .05)\). The standardized factor loadings are indicators of validity for the observed variables (Bollen, 1989). Table 7 presents the results of the unstandardized and standardized factor loadings of the observed variables with their corresponding \(p\)-values. The results showed that the standardized factor loadings of all forty two observable variables were statistically significant for their respective factors, \(p < .001\) validating the relationships among the indicators and the constructs. In addition, the indicator factor loadings were assessed for sufficiency on their representation of the constructs. All variables had large a structural coefficient exceeding the recommended level of .70 except one of them (Hair, Black, Babin, & Anderson, 2009). The observed variable “I should set rules for children and youth to follow in order to have a quality program” had a standardized factor loading (.630) that was slightly below the recommended cutoff value (.7) to be considered a good measure of its corresponding latent factor. Overall, the factorial structure of the items looked very good.
Table 7. Unstandardized Loadings (Standard Errors) and Standardized Loadings for a 6-Factor Confirmatory Model of PYD Program Quality scale.

<table>
<thead>
<tr>
<th>Item</th>
<th>Unstandardized loadings</th>
<th>Standardized loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Program Theory</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program theory should be used to guide program implementation</td>
<td>1.000 (--              )</td>
<td>0.905 (.009)</td>
</tr>
<tr>
<td>Program theory should be used to develop a program plan</td>
<td>1.032 (.009)</td>
<td>0.934 (.007)</td>
</tr>
<tr>
<td>Program theory should be used to carry out a program plan as designed</td>
<td>0.993 (.011)</td>
<td>0.899 (.010)</td>
</tr>
<tr>
<td>Program theory should be used to identify a set of activities that account for behavior</td>
<td>0.958 (.013)</td>
<td>0.867 (.012)</td>
</tr>
<tr>
<td>Program theory should be used to design activities that support the program goals</td>
<td>1.017 (.009)</td>
<td>0.921 (.008)</td>
</tr>
<tr>
<td>Program theory should be used to determine the program activities that are essential to attain the program objectives</td>
<td>0.998 (.010)</td>
<td>0.904 (.009)</td>
</tr>
<tr>
<td>Program theory should be used to understand why programs should be conducted as designed</td>
<td>0.975 (.011)</td>
<td>0.883 (.011)</td>
</tr>
<tr>
<td>Program theory should be used to build logical connections among program activities available resources, and desired outcomes</td>
<td>0.975 (.011)</td>
<td>0.883 (.011)</td>
</tr>
<tr>
<td>Program theory should be used to identify program activities that can be changed without affecting the intended outcomes of the programs</td>
<td>0.998 (.010)</td>
<td>0.903 (.009)</td>
</tr>
<tr>
<td>Program theory should be used to preserve key program activities associated with the success of a program</td>
<td>1.007 (.012)</td>
<td>0.912 (.010)</td>
</tr>
<tr>
<td>Program theory should be used to guide program changes</td>
<td>0.977 (.010)</td>
<td>0.884 (.010)</td>
</tr>
<tr>
<td>Program theory should be used to achieve the desired program outcomes</td>
<td>0.945 (.013)</td>
<td>0.856 (.013)</td>
</tr>
<tr>
<td><strong>Child Youth Development</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I should possess a basic understanding of positive youth development in order to have a quality program</td>
<td>1.000 (--              )</td>
<td>0.832 (.027)</td>
</tr>
<tr>
<td>I should understand the developmental stages of children and youth in order to have a quality program</td>
<td>1.016 (.037)</td>
<td>0.845 (.020)</td>
</tr>
<tr>
<td>I should use educational curriculum that is aligned with children and youth developmental stages in order to have a quality program</td>
<td>0.904 (.037)</td>
<td>0.752 (.025)</td>
</tr>
</tbody>
</table>

(Cont’d)
<table>
<thead>
<tr>
<th>Item</th>
<th>Unstandardized loadings</th>
<th>Standardized loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>I should understand the positive youth development core competencies youth need to become successful adults in order to have a quality program</td>
<td>1.053 (.036)</td>
<td>0.876 (.016)</td>
</tr>
<tr>
<td>I should be able to teach the positive youth development core competencies in order to have a quality program</td>
<td>0.952 (.039)</td>
<td>0.792 (.021)</td>
</tr>
<tr>
<td>I should recognize the importance of relationships for youth to grow and learn in order to have a quality program</td>
<td>1.012 (.039)</td>
<td>0.842 (.022)</td>
</tr>
<tr>
<td>I should understand that age appropriate structures are necessary for children and youth healthy development in order to have a quality program</td>
<td>1.095 (.036)</td>
<td>0.911 (.013)</td>
</tr>
<tr>
<td>I should understand that developmental stage appropriate structure are necessary for healthy development of children and youth in order to have a quality program</td>
<td>1.084 (.035)</td>
<td>0.902 (.013)</td>
</tr>
<tr>
<td>I should understand the learning styles of children and youth in order to have a quality program</td>
<td>0.917 (.038)</td>
<td>0.763 (.025)</td>
</tr>
<tr>
<td><strong>Staff Training</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff training enables me to use program theory in guiding my programming efforts</td>
<td>1.000 (--)</td>
<td>0.836 (.017)</td>
</tr>
<tr>
<td>Staff Training facilitates my understanding of child youth development</td>
<td>0.991 (.026)</td>
<td>0.828 (.018)</td>
</tr>
<tr>
<td>Staff training enables me to use positive youth development approaches</td>
<td>1.098 (.025)</td>
<td>0.918 (.012)</td>
</tr>
<tr>
<td>Staff training enables me to manage my program in ways that foster youth participation and engagement</td>
<td>1.037 (.023)</td>
<td>0.867 (.015)</td>
</tr>
<tr>
<td>Staff training facilitates my understanding of social ecological theory</td>
<td>1.111 (.024)</td>
<td>0.929 (.010)</td>
</tr>
<tr>
<td>Staff training enables me to use social ecological theory to deliver a quality program</td>
<td>1.156 (.024)</td>
<td>0.967 (.008)</td>
</tr>
<tr>
<td><strong>Social Ecological Theory</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I should understand how families, school, religions, communities, cultures, or societies in which youth live affect program quality</td>
<td>1.000 (--)</td>
<td>0.897 (.016)</td>
</tr>
<tr>
<td>I should understand how families, school, religions, communities, cultures, or societies shape a youth’s development in order to have a quality program</td>
<td>1.014 (.022)</td>
<td>0.910 (.014)</td>
</tr>
</tbody>
</table>

(Cont’d)
<table>
<thead>
<tr>
<th>Item</th>
<th>Unstandardized loadings</th>
<th>Standardized loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>I should support the integration of family in my program in order to have a quality program</td>
<td>0.837 (.029)</td>
<td>0.751 (.022)</td>
</tr>
<tr>
<td>I should support the integration of schools in my program in order to have a quality program</td>
<td>0.862 (.029)</td>
<td>0.773 (.022)</td>
</tr>
<tr>
<td>I should support the integration of a community in my program in order to have a quality program</td>
<td>0.950 (.025)</td>
<td>0.853 (.017)</td>
</tr>
<tr>
<td>I should design activities that provide children and youth the skills they need to successfully navigate through multiple environments in order to have a quality program</td>
<td>0.949 (.032)</td>
<td>0.851 (.025)</td>
</tr>
<tr>
<td>I should set rules for children and youth to follow in order to have a quality program</td>
<td>1.000 (-- )</td>
<td>0.630 (.036)</td>
</tr>
<tr>
<td>I should share norms with children and youth on acceptable behaviors in order to have a quality program</td>
<td>1.273 (.085)</td>
<td>0.802 (.028)</td>
</tr>
<tr>
<td>I should share expectations with children and youth on acceptable behaviors in order to have a quality program</td>
<td>1.443 (.097)</td>
<td>0.909 (.024)</td>
</tr>
<tr>
<td>I should share limits with children and youth on acceptable behaviors in order to have a quality program</td>
<td>1.234 (.078)</td>
<td>0.778 (.028)</td>
</tr>
<tr>
<td>I should have a plan that I follow for each class that I conduct with children and youth in order to have a quality program</td>
<td>1.290 (.096)</td>
<td>0.813 (.035)</td>
</tr>
<tr>
<td>I should support children and youth experience of empowerment in order to have a quality program</td>
<td>1.000 (-- )</td>
<td>0.910 (.015)</td>
</tr>
<tr>
<td>I should provide children and youth with experience of empowerment in order to have a quality program</td>
<td>0.985 (.022)</td>
<td>0.897 (.015)</td>
</tr>
<tr>
<td>I should support children and youth’s experience of belonging in order to have a quality program</td>
<td>1.000 (.027)</td>
<td>0.910 (.021)</td>
</tr>
<tr>
<td>I should provide children and youth with experience of belonging in order to have a quality program</td>
<td>0.886 (.032)</td>
<td>0.806 (.027)</td>
</tr>
</tbody>
</table>

Note: All factor loading were significant, \( p < .001 \).

The correlations between the six factors of the model were examined to determine to what degree they are associated with each other (Davis’ (1971). The results (see Table 8) show that the correlation \( r = .67 \) between child youth development and program theory was the
highest, but not high enough to cause excess multicollinearity. Whereas the correlation between program management-environment and staff training was the lowest ($r = .27$). Additionally, the lowest levels of relationships were between staff training and the other factors.

Table 8. Correlation matrix for the 6-factor confirmatory model of the PYD Program Quality Scale

<table>
<thead>
<tr>
<th>Factors</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff Training</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child Youth development</td>
<td>0.388</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program Theory</td>
<td>0.363</td>
<td>0.673</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social Ecological Theory</td>
<td>0.288</td>
<td>0.639</td>
<td>0.551</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program Management-Environment</td>
<td>0.272</td>
<td>0.544</td>
<td>0.480</td>
<td>0.592</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Program Management-Engagement</td>
<td>0.280</td>
<td>0.631</td>
<td>0.498</td>
<td>0.650</td>
<td>0.579</td>
<td>1</td>
</tr>
</tbody>
</table>

*Note: All the estimates are significant for $p < .001$*

**Objective Three**

The purpose of the objective three analysis was to assess the reliability of the *Positive Youth Development Program Quality Competence Questionnaire* (PYDPQCQ) using both group 1 and group 2 data. The point estimates of reliability of the factors for the initial model ranged from .831 to .97 (see Table 9). The point estimates of reliability of the factors for the final model ranged from .832 to .964. The reliability coefficient of the 12 item-factor program theory was .97 with a 90% confidence interval (.964 -.975) for the initial model and .96 with a 90% confidence interval (.957 -.970) for the final model. As can be seen, the reliability estimate of the 12 item-factor program theory slightly decreased (0.006) in the final model. This factor had the highest reliability estimates for both models. The 4 item-factor program management-environment had a coefficient of reliability that was estimated at .831 with a 90% confidence interval (.798 -.864)
representing the lowest estimate for the initial model. Whereas the 5 item-factor program management-engagement had a coefficient of reliability that was estimated at .832 with a 90% confidence interval (.793 - .872) representing the lowest estimate for the final model. As illustrated, none of the estimates fell within the same confidence interval and only social ecological theory and program management-environment had their initial estimates slightly improved in the final model. These findings suggest a fairly high reliability (.80 - .90) of the factors measuring positive youth development program quality competencies (Robinson, Shaver, & Wrightsman, 1991).

Table 9. Number of Items, Reliability, and Confidence Interval for six factor solution of Positive Youth Development Program Quality Competence Questionnaire

<table>
<thead>
<tr>
<th>Factor</th>
<th>Number of Items</th>
<th>Initial Model Estimate&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Initial Model Confidence Interval&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Final Model Estimate</th>
<th>Final Model Confidence Interval&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Theory</td>
<td>12</td>
<td>.970</td>
<td>.964 - .975</td>
<td>.964</td>
<td>.957 - .970</td>
</tr>
<tr>
<td>Child Youth Development</td>
<td>9</td>
<td>.930</td>
<td>.911 - .949</td>
<td>.923</td>
<td>.907 - .939</td>
</tr>
<tr>
<td>Staff Training</td>
<td>6</td>
<td>.922</td>
<td>.908 - .935</td>
<td>.920</td>
<td>.907 - .932</td>
</tr>
<tr>
<td>Social Ecological Theory</td>
<td>6</td>
<td>.892</td>
<td>.870 - .913</td>
<td>.893</td>
<td>.873 - .913</td>
</tr>
<tr>
<td>Program Management-Engagement</td>
<td>4</td>
<td>.885</td>
<td>.854 - .916</td>
<td>.832</td>
<td>.793 - .872</td>
</tr>
<tr>
<td>Program Management-Environment</td>
<td>5</td>
<td>.831</td>
<td>.798 - .864</td>
<td>.837</td>
<td>.802 - .873</td>
</tr>
</tbody>
</table>

<sup>a</sup> Raykov’s (2009) point estimation of composite reliability

<sup>b</sup> Ninety percent confidence interval

**Discussion**

The exploratory factor analysis conducted yielded a 42-item, six-factor solution. Ten items were eliminated during the analysis. Two of the items were removed because they were not meaningful to their respective constructs (Thompson, 2004). According to Hair, Anderson, Tatham and Black (1998), they were not practically significant. The remaining 8 items were
suppressed for the presence of cross-loadings. The assumptions on which the exploratory factor analysis relies were met. The sample size (520 subjects) was very good according to Comrey and Lee (1992). The ratio of the sample size to the number of items was 10, which coincided with the recommendation of Everitt (1975) and MacCallum et al. (1999). The retained factors explained 64.64% of the total variance. A solution that accounts for 60% of the total variance is satisfactory in social sciences (Hair et al., 1998). In addition, the factor coefficients for the constructs varied from fair (.462) to excellent (.938), according to Comrey and Lee (1992).

The confirmatory analysis confirmed the internal structure of the Positive Youth Development Program Quality Competency instrument. The forty-two-item, six-factor solution remained the most parsimonious model that best fitted the data. Additionally, the results showed that reliability estimates for the constructs program theory, child youth development and social ecological theory were exemplarily high (> .90) in both the initial model and the final model (Robinson, Shaver, & Wrightsman, 1991). The point estimates of reliability (.83) for the remaining constructs, program management-environment and program management-engagement, were deemed satisfactory (Robinson et al., 1991).

Conclusions

The Positive Youth Development Program Quality Competency Questionnaire (PYDPQCQ) was a 42-item, 6 factor instrument with adequate fit. The six factors were program theory, staff training, child youth development, social ecological theory, program management-environment, and program management-engagement. These factors had a very good internal structure along with such reliabilities varying from satisfactory to exemplary.
Recommendations and Implications

This study provided evidence that the *Positive Youth Development Program Quality Competency Questionnaire* (PYDPQCQ) had a valid factorial structure. However, additional research should further study the validity including the convergent validity of this factorial structure of the PYDPQCQ using a more diverse sample representative of the positive youth serving organizations in the U.S. to reduce potential bias in the instrument. The participants of this study were self-selected and were drawn from the cooperative extension youth organization.

The PYDPQCQ can be useful to universities, researchers, faculty, youth serving organizations, federal agencies, and international organizations who work to improve youth outcomes in the positive youth development field and other related areas through quality programming. This research instrument may be useful to guide recruiting, professional development, and research.
CHAPTER 4.
EXAMINATION OF THE SOCIAL SUPPORT SYSTEM OF YOUTH DEVELOPMENT PROFESSIONALS AT WOK ACROSS THE U.S

Introduction

Social networks are increasingly important in the workplace. Millennials are excellent natural collaborators, and perform well working closely in teams. Thus, involving in such networks can be very beneficial for professionals and employees. Social networks facilitate partnership and collaboration among professionals, and are “a core practice criterion in youth policy over the last decades” (Sercombe, 2010, p.81). They are platforms in which young professionals or colleagues can learn, share data, and voice their different points of view. For instance, social networks can help with sharing and exchanging information that may have a great impact on professional enhancement of young professionals (Bhavani & Amponsah, 2017). In addition, social networks can be used as a safe place where new ideas can emerge, risk taking is acceptable, and “alternative ways of working can be explored” (Bracey, 2007, p. 31). Indeed, it can be a safe platform for interpersonal risk taking.

Social connection at work is a key attribute of employees’ wellbeing and good working life experiences. Social connectedness can create a sense of love and belonging. It is a fundamental need for every human being (Baumeister & Leary, 1995; Bowlby, 1969, 1973; Guisinger & Blatt, 1994; Hogan, 1983; Horney, 1945; Maslow, 1968; Ryan, 1991; Sullivan, 1953). This subsequently impacts the work environment in terms of harmony or inclusiveness. Employees feel psychologically safer to seek new information and share ideas and concerns when feeling valued and connected to a workplace (Edmondson, 1999). Social connectedness can enhance people’s self-confidence and subsequently improve their ability to overcome inhibitions in working through problems and experimenting with solutions. Therefore, high
quality connections among coworkers contribute to employees’ psychological health and work performance (Carmeli, Brueller, & Dutton, 2009; Edmondson, 1999). Scholars suggest that a socially connected work team, with enhanced learning and collaboration, brings enhanced organizational performance, which in turn can help foster a competitive edge (Edmondson, 1999). Indeed, it is important to understand that employees need to have social connections in their workplace in order to produce and maintain a strong level of work performance (Irwin, 2015).

The importance of working-relationships have been highlighted in many studies. Research has found that working relationships have significant influence in the quality of working life experiences of Australian workers (Considine & Callus, 2001; Ellis & Pompili, 2002; Roan & Diamond, 2003). Hannif & Fernando (2008) found that working relationships were one of the most determinant factors of employees’ quality working life. They value having the opportunity to lunch and vent with individuals and work colleagues they can relate to, share work-related problems with, and seek support from as needed. In addition, employees capitalize on the experiences of their colleagues and expand their own. For instance, some colleagues, in a workplace, may have overlapping work experiences while others may have distinct experiences. That pooled experience may help co-workers tackle the most difficult tasks. “The greater the sum of expertise, creativity, and problem-solving skill applied, the more effective the planning and delivery of services will be” argue Woodside & McClam (2006, p. 233). Social networks foster a stronger and more skilled workforce by providing room for compensation of areas of weakness among colleagues. According to Hannif & Fernando (2008), the association that exists between co-worker relations and job performance is strong. The process of acquiring, sharing, and exchanging critical information, innovative ideas, and experiences may transform the way
employees work (processes) and bring about real changes in the lives of children and youth (Kozlowski and Ilgen, 2006; Carmeli, Brueller, & Dutton, 2009).

However, networking or working together can be challenging for many. People tend to have excessive concerns about others’ reactions. They fear embarrassment or loss of acceptance. In addition, they often have different values and agendas. Therefore, working together requires trust, commitment, accountability, confidentiality and mutual understanding and respect among colleagues. Schools, community agencies, and youth workers need to understand what each other stands for and mutually value the potential contributions of each other (Taylor, 2010). Therefore, the quality of youth programs will depend on a new generation of professionals that understand the benefits and liabilities of working relationships-- participatory and collaborative--and are able to work and communicate across disciplines/sectors (White, 2012). Workers may need training in interpersonal domains for the benefits of work collaboration become apparent. This requires the systems to feel the needs and commit to invest significantly in professional development of workers (White, 2012). Despite the pitfalls of work collaboration, its “powerful momentum is unlikely to be diminished” (Sullivan and Skelcher, 2002, p. 224). Place-based collaborations are prone to solve more complex problems. However, professional development programs tend to overlook social knowledge (Levine & Moreland, 1991). They focus more on cognitions and past organizational experiences (Uzziand & Lancaster, 2003).

Preparing young people to become successful adults is not only the job of youth workers but also the job of families, schools, churches, community agencies, and so forth. Youth workers are just a part of that set. They conform together a natural social network that supports youth’s learning, wellbeing, transitions to work, and civic service (White, 2012). For instance, involving parents and other role models from the community in a youth program can positively impact
children and youth outcomes such as participation and engagement. According to Morrow (2013), “creating a positive, collaborative, effective working relationship between the worker, child or young person, and family ensures the safety, wellbeing, and best interests of the child or young person” (p.3). Therefore, a strong inter-sectorial collaborative action is needed to meet the developmental needs of children and young people. The social supporters should forge and maintain a strong bond among themselves. Developing a linkage system will provide mechanisms for knowledge and experiences transfer. Supporting children and young people’s development requires a wide range of professional expertise and deserve to have the best expertise available (White & Wyn, 2012; Sercombe, 2010).

**Objectives**

1. To determine if colleagues, administrators, clients, and youth families represent a social support system for staff as perceived by youth working practitioners.

2. To describe the perceived social support system of youth working practitioners as determined by the staff collaboration section of the questionnaire.

**Methods**

**Population and Sample**

The target population of this study was paid staff in the United States of America who work directly with young people or children aging from nine to nineteen years old. Data were collected from a convenience sample of 1007 youth professionals.

The participating youth professionals in the study were describes on their following demographic characteristics: age, gender, race, ethnicity, educational level, organizational membership, job status, and years of experience. The results show that 79.1% (n = 789) of the participants were females while only 20.7% (n = 207) of the participants were males. An
additional 0.2% \((n = 2)\) of the participants was identified as gender nonconforming and T LAMB (See Table 1). The participants’ age ranged from 20 to 76 years old with a mean of 43.63 \((SD = 12.27)\). 60.4% \((n = 605)\) of them earned a master’s degree; 29.4% \((n = 294)\) earned a bachelor’s degree; 4.6% \((n = 46)\) earned a doctoral degree; 3.1% \((n = 31)\) earned an associate degree or technical degree, 1.5% \((n = 15)\) were educational specialist, and 1% \((n = 10)\) had a high school diploma or equivalent including GED. 98.8% \((n = 987)\) of the youth professionals who participated in the study reported that they mostly worked in 4-H Youth Development and only 1.2% \((n = 10)\) reported that they mostly worked in the followings: National After-school Association (0.1%), Big Brothers/Big Sisters of America (0.1%), Ag Education – FFA (0.1%), EFNEP (0.1%), Extension Research, Education, Outreach, and Administration (0.1%), Family and consumer Science UT Extension Work (0.2%), out of school time providers (0.1%), Substance Abuse Prevention (0.1%), UW Extension - Agriculture and Natural Resource Education (0.1%), work with school system and day care centers (0.1%). The work experience of these youth professionals in the related field ranged from 0 to 50 years with a mean of 16.10 \((SD = 11.043)\). 88% \((n = 880)\) of the participants reported that they are paid staff, 11.7% \((n = 117)\) of them are reported as both paid staff and volunteer staff, and only .3 \((n = 3)\) % was only volunteer staff.

**Data Collection**

The data were collected nationally using Qualtrics. The participants were contacted directly through their email address taken from the website of their affiliated organizations. A five minutes-survey link was sent to the participants to complete during three weeks. Those who did not complete the survey received up to three follow-up emails.
Data Analysis

First, frequency analysis, percentage, and mode were computed to describe the social support system of youth working practitioners as determined by responses of youth working practitioners. These descriptive analyses occurred in the SPSS version 24. Second, social network analysis (SNA) was performed using UCINET to determine if colleagues, administrators, clients, and youth family constitute a social system that supports staff with the implementation of program quality. A network analysis helped us understand the interactions between the study subjects where nodes and edges respectively represented individuals and their interactions (Yang & Leskovec, 2014).

To conduct the analysis, the network was first decomposed into social communities through community detection. In the network, the nodes/individuals that had communalities or shared a common property such as “supportive” formed groups of social communities. The latter consisted of both densely connected cores and sparsely connected peripheries (Borgatti & Everett, 1999; Holme, 2005; Tossa, Dercole, & Picardi, 2013). Second, the overlapping community detection method “Affiliation Graph Model (AGM),” which described communities as overlapping tiles, was used to uncover if overlapping communities existed (Yang & Leskovec, 2012). The AGM is a widely used technique that can accurately decompose networks into both overlapping and non-overlapping communities (Ahn, Bagrow, & Lehmann, 2010; Airoldi, Blei, Fienberg, & Xing, 2007; Palla, Derenyi, Farkas, & Vicsek, 2005; Rosvall & Bergstrom, 2008; Yang & Leskovec, 2014). Overlapping communities were communities whose members also belonged to other social communities (Yang & Leskovec, 2014). Identifying overlapping communities was key to comprehend the structure and the dynamics of social systems (Krogan,
et al., 2006; Wasserman & Faust, 1994; Flake, Lawrence, Giles, & Coetzee, 2002; Newman, 2010).

**Results**

The results of this study include a descriptive analysis of the individuals or entities who helped the participants in the study in accomplishing their work tasks and the social communities that emerged as a result of the social interactions.

**Objective One**

The participants in the study reported 16 individuals/entities that supported them in their job tasks. The individuals/entities that were reported are colleagues, administrators, clients, family, volunteers, collaborators, stakeholders, communities, advisories, friends, self, alumni, university faculty, college interns, staff, and mentors (See Table 10). However, most participants (91.4%; \( n = 920 \)) reported that they received support from colleagues when completing a task. Whereas less participants (52.3%; \( n = 527 \)) reported that they received support from family, given the response categories provided.

Table 10. Frequency and percentage of the number of individuals reported by the youth professionals as part of their social network of support (\( N = 1007 \)).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colleagues</td>
<td>920</td>
<td>91.4</td>
</tr>
<tr>
<td>Clients/Program Participants</td>
<td>822</td>
<td>81.6</td>
</tr>
<tr>
<td>Administrators</td>
<td>680</td>
<td>67.5</td>
</tr>
<tr>
<td>Family</td>
<td>527</td>
<td>52.3</td>
</tr>
</tbody>
</table>

The participants in the study reported twelve other sources of support in addition to what was provided in the survey (see Table 11). Volunteers and stakeholders were listed as the main
sources of support with 8.8% (n = 88) of the participants reported they received support from them. Whereas college interns (0.1%; n = 1) and mentors (0.1%; n = 1) were least reported as source of support when the participants were asked who mostly support when completing a task.

Table 11. Frequency and percentage of other response categories reported by the youth professionals as part of their support system network at work (N = 1007).

<table>
<thead>
<tr>
<th>Response category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volunteers</td>
<td>44</td>
<td>4.4</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>44</td>
<td>4.4</td>
</tr>
<tr>
<td>Collaborators</td>
<td>43</td>
<td>4.3</td>
</tr>
<tr>
<td>Community</td>
<td>14</td>
<td>1.4</td>
</tr>
<tr>
<td>Staff</td>
<td>12</td>
<td>1.2</td>
</tr>
<tr>
<td>Advisory</td>
<td>11</td>
<td>1.1</td>
</tr>
<tr>
<td>Friends</td>
<td>5</td>
<td>.5</td>
</tr>
<tr>
<td>Alumni</td>
<td>3</td>
<td>.3</td>
</tr>
<tr>
<td>University Faculty</td>
<td>3</td>
<td>.3</td>
</tr>
<tr>
<td>Self</td>
<td>2</td>
<td>.2</td>
</tr>
<tr>
<td>College Interns</td>
<td>1</td>
<td>.1</td>
</tr>
<tr>
<td>Mentor</td>
<td>1</td>
<td>.1</td>
</tr>
</tbody>
</table>

**Objective Two**

The social community’s structure that emerged from the interactions between the youth professionals in the study and their reported supporters were detected and examined using UCINET 6. The results show that the participants formed four main social communities with their colleagues, clients or program participants, administrators, and family (see Graph 1). The structure of these social communities was characterized by the high density of the ties between the youth professionals (participants in the study) and those from whom they received support. The Graph 1 shows that the social communities that formed between the participants in the study and administrators, clients, and family were clearly overlapped. The participants belonged to
multiple social communities. In addition, only 5 of the participants in the study did not disclose their ties or belongings to any communities that were reported (see Graph 1).

**Graph 1.** Community network between youth professionals and their reported source of support

The distribution patterns of the components or individuals of the reported social system were also examined. Graph 2 showed that the individuals that formed the social support of youth development professionals including the participants had a spherical distribution. The individuals who supported the participants in accomplishing their work tasks scattered laterally, proximally, and distally on the surface of an imaginary sphere. The lateral distribution pattern included the left lateral group (clients, volunteer, family, stakeholders, and friends) and the right lateral group (college interns, alumni, university faculty, self, advisors, administrators, and community). The proximal and distal clusters included mentors and colleagues respectively. Graph 2 also showed
that only 5 participants disperse from the spherical distribution because they developed weak ties with their social support system.

Graph 2. Distribution patterns of the social support system of the participants in the study

Discussion

The results showed that people who supported the participants in the study were principally colleagues, administrators, clients, family, volunteers, collaborators, stakeholders, communities, advisories, friends, self, alumni, university faculty, college interns, staff, and mentors. Collaboration occurs when a task or issue is beyond the capacity or scope of one person or one agency (Bailey & Koney, 1996; Weil, 1996; Parsloe, 1990). The findings of this study were consistent to Graham and Barter's definition of collaboration (1997). These authors argued that collaboration captured the needs for professional relationships between workers and clients, workers and colleagues, workers and agencies, agencies and agencies, workers/agencies and communities/societies.
Collaboration also captured the needs to form alliances in order to develop and promote new practices that meet the rapidly changing social needs (Lawson & Anderson, 1996). It brings about social and community changes (Bailey & Koney, 1996; Hoffman & Sallee, 1994; Specht, 1975). The goals of the youth serving organizations should not be divorced from the goals of the community, schools, and community agencies. Family involvement is crucial for positive educational and psychological outcomes of children and youth (Henderson & Mapp, 2002).

Many researches in evidenced-based practice (EBP) have failed to study the context variables such as the involvement of external stakeholders and roles of relationships within which collaboration occurs (Horwath & Morrison, 2007). Inter-agency collaboration is critical for quality implementation in child/youth serving systems (Prince & Austin, 2005). Research have found that collaboration is associated with improved access to service and improved outcomes (Cottrell et al., 2000; Bai et al., 2009).

**Conclusions**

The finding suggested that youth development professionals who participated in the study had a social support system that accompanied them in performing their work tasks. The support system included colleagues, administrators, clients, family, volunteers, collaborators, stakeholders, communities, advisories, friends, self, alumni, university faculty, college interns, staff, and mentors. These components of the social support system formed four principal social communities. The largest majority of the ties within the communities are established between the participants and colleagues. The members of these communities including the participants had a spherical distribution.
Recommendations

This was a descriptive study. Additional research should be conducted to study the structure of the existing social support system and the characteristic of its components. A multiple regression should be conducted to determine what factors influencing the network structure the most.
CHAPTER 5.
SUMMARY

Introduction

This study researched program quality in the context of positive youth development with the purpose of designing a staff training model that would help youth professionals to identify and respond adequately to implementation challenges they are faced at work. Program Quality is not only about identifying program implementation features and best practices, but also understanding the mutual logical connections between the rationale and the activities of a program. Additionally, it requires the agreement among the youth professionals, stakeholders, and researchers on which best practices, features, or/and indicators that lead to implementation quality.

The positive youth development approach is time consuming and challenging. It requires highly trained individuals in quality programming to use this approach. Many frontline youth professionals enter the field without adequate training in quality programming. They rely mostly on their experiences to do their job. We can no longer afford to leave the lives and the future of the children and youth in the hands of individuals that are inadequately prepared to help them transform successfully to adulthood. The stakes are too high. The future of the nation and the world depends on them.

Objectives of this Study

Objectives were established for each of the three articles presented in chapters 2, 3, and 4. These objectives were as follows:

Chapter 2

1. To identify gaps in and inform future research about the staff core competencies needed to support PYD program quality.
Chapter 3

1. To examine the factorial structure of the Positive Youth Development Program Quality Competency Questionnaire (PYDPQCQ) using responses from youth working practitioners in the U.S.

2. To confirm the factorial structure of the Positive Youth Development Program Quality Competency Questionnaire (PYDPQCQ) using responses from youth working practitioners in the U.S.

3. To assess the reliability of the Positive Youth Development Program Quality Competency Questionnaire (PYDPQCQ) using responses from youth working practitioners in the U.S.

Chapter 4

3. To determine if colleagues, administrators, clients, and youth families represent a social support system for staff as perceived by youth working practitioners.

4. To describe the perceived social support system of youth working practitioners as determined by the staff collaboration section of the questionnaire.

**Brief Summary of Methods**

This chapter presented an overall summary of the methods used in this study. In chapter 2, the researcher developed a written protocol to guide the search and the literature review of this article. The protocol included the following six criteria: inclusion criteria, intervention, outcome, study design, search strategy, and language.

In chapter 3, a sample of 1007 youth development professionals was used for the establishment of the psychometrics of the newly developed instrument: Positive Youth Development Program Quality Competency Questionnaire (PYDPQCQ). The sample was randomly split in group 1 and group 2. The former was for exploratory factor analysis and the
latter was for confirmatory analysis. The overall sample was used to assess the point estimation of composite reliability. These analyses were conducted in *SPSS* and *Mplus*.

In chapter 4, the overall drawn sample was used to conduct descriptive analyses of the social support system for youth development professionals using *SPSS* and social network analysis software *UCINET 6*.

**Brief Summary of Findings**

This section included an overview of the findings of all 3 three chapters. In chapter 2, the findings showed that there was a need to bridge the gaps between program processes and program structures to improve youth outcomes. These gaps could be narrowed down through staff training in quality programming. The latter should include at least the following five components: program theory, child youth development, social ecological theory, and program management.

In chapter 3, the results showed that the exploratory factor analysis yielded a 42-item, 6 factor solution, which was validated by the confirmatory factor analysis conducted. The model had a very good fit to the data (RMSEA = .6; T-L > .9; CFI > .90), its factor structure was good, and its coefficients of reliability ranged from fair (> .8) to exemplary (> .90). In addition, no excessive multicollinearity was present in the data.

In chapter 4, the study showed that colleagues (91.4%; n = 920) and family members (52.3%; n = 527) were reported as the main components of the participants’ social support system. The participants and who supported them those (colleagues, family members, clients, administrators) formed 4 overlapping social communities considering the high density of their ties and multiple memberships. The members of the social communities had a spherical distribution with four clusters (lateral (left & right), proximal, and distal).
General Conclusion Statements

This section synthesized the conclusions of all 3 chapters in the study. In chapter 2, a new staff training model was developed to foster quality programming in the field of positive youth development. The model included 5 components: staff training, child youth development, program theory, and program management and program quality. That model was labeled “Norze-Cater Staff Training Model of Youth Development Program Quality”.

In chapter 3, there was evidence to claim that the internal structure of the Positive Youth Development Program Quality Competency Questionnaire (PYDPQCQ) used to measure the perceptions of youth development professionals about the components of the Norze-Cater Model was valid and highly reliable.

In chapter 4, the results showed that a social support system existed to accompany youth development professionals in their work. Colleagues and clients members were the principal components of this social support system. The members of the social support system including the participants formed a spherical community, generally.
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APPENDIX A

DIAGRAM FROM THE CONFIRMATORY FACTOR ANALYSIS

Figure 2. The diagram of the final model
APPENDIX B

Positive Youth Development Program Quality Competency Questionnaire

Start of Block: Default Question Block

Q1
Consent form

The IRB looked at the project and determined it did not need formal approval 1. Study Title: Staff beliefs about program theory, program management, child/youth development, and positive youth development program quality. 2. Performance Site: Louisiana State University and Agricultural and Mechanical College 3. Investigators: The following investigators are available for questions about this study, M-F, 8:00 a.m. - 4:30p.m. Jeantyl Norze, (225) 447-2573 Dr. Melissa Cater, (225) 578-2903. 4. Purpose of the Study: The primary purpose of this study is to examine a comprehensive staff-training framework that supports positive youth development program quality. 5. Subject Inclusion: Staff who work directly with youths between the ages of 9 and 19. 6. Number of subjects: 602. 7. Study Procedures: Subjects will complete a questionnaire on their demographic characteristics and the six variables, staff-training importance, staff collaboration, and importance of training on program theory, program management, child/youth development, and social ecological theory for program quality. In general, subjects will spend approximately 5 minutes completing the questionnaire. 8. Benefits: Subjects will have the opportunity to reflect on variables that can potentially improve their work performance. In addition, the study findings may be used to enhance the quality of their work. 9. Risks: There are no known risks. 10. Right to Refuse: Subjects may choose not to participate or to withdraw from the study at any time without penalty or loss of any benefit to which they might otherwise be entitled. 11. Privacy: Results of the study may be published, but no names or identifying information will be included in the publication. Subjects’ identity will remain confidential unless disclosure is required by law. 12. Consent: If you have questions regarding study specifics, please contact the investigators. If you have questions about subjects’ rights or other concerns, you can contact Dennis Landin, Institutional Review Board, (225) 578-8692, irb@lsu.edu, www.lsu.edu/irb. By beginning the survey, you acknowledge that (1) you have read and understand the above information, (2) you have had all of your questions about participation on this research project answered, and (3) you voluntarily consent to participate in this research.

☐ Yes, continue to survey  (1)

☐ No, exit survey  (2)

Skip To: End of Survey If Consent form

The IRB looked at the project and determined it did not need formal approval 1... = No, exit survey
Q2  STAFF COLLABORATION OR STAFF SUPPORT SYSTEM FOR PROGRAM QUALITY IMPLEMENTATION

Who among the following people listed are likely to support you in ensuring that you have a quality program? Check all that apply:

☐ Colleagues (1)

☐ Administrators (2)

☐ Clients/Program Participants (3)

☐ Family (4)

☐ Others [Please name] (5) ________________________________________________
### Definitions of key words:

**Program Theory:**
Testable mechanisms between program activities and participants outcomes that help explain how and why outcomes are achieved.

**Social Ecological Theory:**
A theory suggesting that individuals are influenced by all of the environments in which they interact.

Please indicate your level of agreement with each following statement:

| 1. Staff training enables me to use program theory in guiding my programming efforts (1) | Strongly Disagree (1) | Disagree (2) | Somewhat disagree (3) | Somewhat agree (4) | Agree (5) | Strongly agree (6) |
| 2. Staff training facilitates my understanding of child/youth development (2) | | | | | | |
| 3. Staff training enables me to use a positive youth development approach to achieve a quality program (3) | | | | | | |
| 4. Staff training enables me to manage my program in ways that foster youth participation and engagement (4) | | | | | | |
| 5. Staff training facilitates my understanding of social ecological theory (5) | | | | | | |
6. Staff training enables me to use social ecological theory to deliver a quality program (6)

Q4 CHILD/YOUTH DEVELOPMENT:

Core competencies definition: core competencies are a number of competencies such as competence, confidence, character, connection, caring, and contribution that a youth needs to fully develop into successful adults.
Please indicate your level of agreement with each following statement:
<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree (1)</th>
<th>Disagree (2)</th>
<th>Somewhat disagree (3)</th>
<th>Somewhat agree (4)</th>
<th>Agree (5)</th>
<th>Strongly agree (6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I should possess a basic understanding of positive youth development in order to have a quality program (1)</td>
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<tr>
<td>2.</td>
<td>I should understand the developmental stages of children and youth in order to have a quality program (2)</td>
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<tr>
<td>3.</td>
<td>I should use educational curriculum that is aligned with child and youth developmental stages in order to have a quality program (3)</td>
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<tr>
<td>4.</td>
<td>I should understand the positive youth development core competencies youth need to become successful adults in order to have a quality program (4)</td>
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</tbody>
</table>
5. I should be able to teach the positive youth development core competencies in order to have a quality program (5)

6. I should recognize the importance of relationships for youth to grow and learn in order to have a quality program (6)

7. I should be able to develop genuine relationships with children and youth in order to have a quality program (7)

8. I should be able to offer youth with opportunities for meaningful interactions with the social systems in order to have a quality program (8)
9. I should understand the personality of each adolescent in order to have a quality program (9)

10. I should provide children and youth with opportunities for skill-building in order to have a quality program (10)

11. I should understand that age appropriate structures are necessary for children and youth healthy development in order to have a quality program (11)

12. I should understand that developmental stage appropriate structures are necessary for healthy development of children and youth in order to have a quality program (12)
13. I should understand the learning styles of children and youth in order to have a program.

Q5 PROGRAM THEORY: Definition: Testable mechanisms between program activities and participants outcomes that help explain how and why outcomes are achieved.

Please indicate your level of agreement with each following statement:
<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree (1)</th>
<th>Disagree (2)</th>
<th>Somewhat disagree (3)</th>
<th>Somewhat agree (4)</th>
<th>Agree (5)</th>
<th>Strongly agree (6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Program theory should be used to guide program implementation (1)</td>
<td></td>
<td></td>
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<tr>
<td>2.</td>
<td>Program theory should be used to develop a program plan (2)</td>
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<tr>
<td>3.</td>
<td>Program theory should be used to carry out a program plan as designed (3)</td>
<td></td>
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<tr>
<td>4.</td>
<td>Program theory should be used to identify a set of activities that account for behavior (4)</td>
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<tr>
<td>5.</td>
<td>Program theory should be used to design activities that support the program goals (5)</td>
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<tr>
<td>6.</td>
<td>Program theory should be used to determine the program activities that are essential to attain the program objectives (6)</td>
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<tr>
<td>7.</td>
<td>Program theory is necessary to understand why programs should be conducted as designed (7)</td>
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</tbody>
</table>
8. Program theory should be used to build logical connections among program activities, available resources, and desired outcomes (8)

9. Program theory should be used to identify program activities that can be changed without affecting the intended outcomes of the programs (9)

10. Program theory should be used to preserve key program activities associated with the success of a program (10)

11. Program theory should be used to guide program changes (11)

12. Program theory should be used to achieve the desired program outcomes (12)
Q6  SOCIAL ECOLOGICAL THEORY:  Definition: A theory suggesting that individuals are influenced by all of the environments in which they interact.

Please indicate your level of agreement with each following statement:
<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree (1)</th>
<th>Disagree (2)</th>
<th>Somewhat disagree (3)</th>
<th>Somewhat agree (4)</th>
<th>Agree (5)</th>
<th>Strongly agree (6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I should understand how families, schools, religions, communities, cultures, or societies in which a youth lives affect program quality (1)</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
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</tr>
<tr>
<td>2.</td>
<td>I should understand how families, schools, religions, communities, cultures, or societies shape a youth’s development in order to have a quality program (2)</td>
<td>〇</td>
<td>〇</td>
<td>〇</td>
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<tr>
<td>3.</td>
<td>I should support the integration of a family in my program in order to have a quality program (3)</td>
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<tr>
<td>4.</td>
<td>I should support the integration of schools in my program in order to have a quality program (4)</td>
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</tbody>
</table>
5. I should support the integration of a community in my program in order to have a quality program (5)

6. I should design activities that provide children and youth the skills they need to successfully navigate through multiple environments in order to have a quality program (6)

7. I should provide appropriate, specific feedback to program participants in order to have a quality program (7)
Q7 PROGRAM MANAGEMENT:

Please indicate your level of agreement with each following statement:
<table>
<thead>
<tr>
<th></th>
<th>Strongly disagree (1)</th>
<th>Disagree (2)</th>
<th>Somewhat disagree (3)</th>
<th>Somewhat agree (4)</th>
<th>Agree (5)</th>
<th>Strongly agree (6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I should set rules for children and youth to follow in order to have a quality program (1)</td>
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<tr>
<td>2.</td>
<td>I should share norms with children and youth on acceptable behaviors in order to have a quality program (2)</td>
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<tr>
<td>3.</td>
<td>I should share expectations with children and youth on acceptable behaviors in order to have a quality program (3)</td>
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<tr>
<td>4.</td>
<td>I should share limits with children and youth on acceptable behaviors in order to have a quality program (4)</td>
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</tbody>
</table>
5. I should have a plan that I follow for each class that I conduct with children and youth in order to have a quality program (5)

6. I should involve children and youth in the planning and implementation of the program in order to have a quality program (6)

7. I should discuss my program implementation plan with colleagues for input in order to have a quality program (7)

8. I should possess the skills to assess the diverse challenges I face at work in order to have a quality program (8)
9. I should possess the skills to respond to the diverse challenges I face at work in order to have a quality program (9)

10. I should be responsive to children and youth individual needs in order to have a quality program (10)

11. I should support children and youth’s experience of empowerment in order to have a quality program (11)

12. I should provide children and youth with experience of empowerment in order to have a quality program (12)

13. I should support children and youth’s experience of belonging in order to have a quality program (13)
14. I should provide children and youth with experience of belonging in order to have a quality program (14)

Q8 What gender you consider yourself to be?

- Male (1)
- Female (2)
- Others [please name] (3) ________________________________________________

Q9 What is your age in years today?

______________________________________________
Q10 Choose one race that you consider yourself to be:

- Caucasian (1)
- Black or African American (2)
- American Indian or Alaska Native (3)
- Asian (4)
- Native Hawaiian or Pacific Islander (5)
- Hispanic (6)
- Other [please specify] (7) ________________________________________________

Q11 Choose one ethnicity you are identified with:

- Hispanic or Latino (1)
- Not Hispanic or Latino (2)

Q12 What is the highest level of education that you have completed?

- High school graduate (high school diploma or equivalent including GED) (1)
- Associate/technical degree (2)
- Bachelor’s degree (3)
- Master’s degree (4)
- Educational Specialist (5)
- Doctoral degree (6)
Q13 Please select the organization in which you do the most work

- 4-H Youth Development (1)
- National After-school Association (NAA) (2)
- YWCA USA (3)
- Girls Scout of the USA (4)
- Boys & Girls Clubs of America (BGCA) (5)
- Big Brothers/Big Sisters of America (BBBSA) (6)
- Others [please specify] (7) ________________________________________________

Q14 Years of professional experience

________________________________________________________________

Q15 Please select which of the following statements describes you best

- I am a paid staff (1)
- I am a volunteer staff (2)
- I am both paid and volunteer staff (3)

End of Block: Default Question Block
APPENDIX C

INSTITUTIONAL REVIEW BOARD APPROVAL

To: Norze, Jeantyl <Norze@agcenter.lsu.edu>
Cc: Cater, Melissa W. <MCater@agcenter.lsu.edu>

Subject: IRB Application

Hi,

The IRB chair reviewed your application. Staff beliefs about program theory, program management, child/youth development, and positive youth development as variables of positive youth development program quality, and determined IRB approval for this specific application (IRB# E0532) is not needed. There is no manipulation of, nor intervention with, human subjects. Should you subsequently devise a project which does involve the use of human subjects, then IRB review and approval will be needed. Please include in your recruiting statements or intro to your survey, the IRB looked at the project and determined it did not need a formal review.

You can still conduct your study. It falls under a certain category that does not need IRB approval.

Elizabeth Cadarette
IRB Coordinator
Office of Research and Economic Development
Louisiana State University

Norze, Jeantyl
VITA

Jeantyl Norze is originally from Haiti. He was born in a rural area--Savane Henry, but raised in a small town called “Miragoane”, which is 50 miles (80 Kms) from Port-au-Prince, the Capital city. He did his primary school at the sacred heart of Miragoane and his secondary school at Lycee Jacques Prevert de Miragoane. After his secondary school, he went to pursue his veterinary degree in Cuba, where he graduated with “titulo de oro” (Honors diploma). Upon his graduation, he went back to his home country to contribute to his development. He had the privilege to work for several years for the Haitian government in the Ministry of Agriculture and collaborated with many national and international organizations. In 2012, he left Haiti to pursue his graduate studies in the US and plans to graduate in August 2018.