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Critical Competencies of Program Quality as Perceived by Extension Educators

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Abstract: This study examined the perceptions of youth development professionals (n=1007) across the United States about six critical staff training components using the *Program Quality Competency Questionnaire* (PQCQ), which was a valid, reliable research instrument. The critical staff training components that were analyzed included program theory, child youth development, social ecological theory, staff training development, program management engagement, and program management environment. These components formed a conceptual framework that may serve for skills refinement, curriculum development, job descriptions, training and professional development, and further discussions among researchers, practitioners, and other relevant parties around key competencies that are needed for youth quality programming since the study findings suggest that the components of the staff training model were critical to achieve quality programming in the field of positive youth development. The study findings also indicate that the perceptions of the participants varied greatly between gender. In addition, the study suggests that extension youth development professionals in the U.S were highly educated and were predominantly White/Caucasian women. The researcher suggests that administrators of youth development programs to consider adopting the framework and making the positive youth development field more attractive to the underrepresented population so the field can enjoy the benefits of diversity.

Keywords: Staff Training, Program Quality, Diversity, Positive Youth Development

1. Introduction

This paper researched program quality in the context of positive youth development (PYD) with the purpose of examining the perceptions of youth development professionals about the components of a staff training model that was designed to help them identify and respond adequately to implementation challenges they face at work. This staff training model includes five competencies that are critical for quality programming: program theory, child and youth development, social ecological theory, program management-environment, and program management-engagement [1]. Staff training is important to make sure that people who are involved in youth development (YD) programs are highly qualified and motivated [2]. Well-trained staff are the key to quality youth programming. YD professionals are placed in a unique developmental crossroad to assist youth grow and develop into competent adults [3].

Research has shown that program quality is not only about identifying program implementation features and best practices, but also understanding the logical connections between the rationale and the activities of a program [4]. Additionally, it requires a mutual understanding among practitioners, stakeholders, and researchers on which best practices, features, and indicators that lead to implementation quality [5, 6]. This operational definition of program quality incorporates both formal theories and stakeholders' theories of program evaluation [7]. Based on this operational definition, it was imperative to pay attention to practitioners' perspectives of the newly developed model. To be relevant, staff training models must meet the training needs of practitioners. As a result, priorities and opportunities for professional development should derive from needs assessment.

The PYD approach is time consuming and challenging [8]. However, many frontline YD professionals enter the field without adequate training in quality programming [9]. The purpose of this staff training model is to help practitioners

deliver and sustain programs that yield better youth outcomes [1]. The link between staff training and quality programming has been well documented in the literature on early childcare and school-age care [10-13]. However, little attention has been paid to these relationships in positive youth development field. Only two YD studies were found to support the relationships between staff training and program quality [14, 15].

In addition, research indicates a lack of diversity in the field of positive youth develop workforce. Diversity is important for high quality programming. It fosters belonging and high quality youth-adult relationships. Effective staff are key to program quality. Having a more diverse workforce might help programs that struggle with recruitment and retention. Turnover is very high (up 40% annually) among youth workers, which disrupts youth-adult relationships in programs [16]. Diversity is also important if we want to have an inclusive, creative and comprehensive approaches to youth programming. White women are largely predominant in the field of PYD. As in [17], 170 YD workers across 35 states and 2 territories completed a survey about a "Moving Ahead" course that was introduced to them over a period of 4 years, as part of a pilot test. The results show that 80% of the participants were women and 85% were white/Caucasians. Another study [18] examined the demographic differences among YD workers including 4-H agents (n=308), 4-H volunteers (n=520), and 4-H specialists (n=43) across 4 regions (North East, North Central, South, and West) in the United States. They found that women represented 79.38% of the volunteers, 68.27% of the agents, and 67.50 of the specialists.

Objectives of the Current Study

To describe the participants in the study on the following demographic characteristics: gender, race, and level of education.

To describe the participants' perceptions of the *Program Quality Competency Questionnaire* (PQCQ) as determined by their responses.

To compare the participants' perception of the *Program Quality Competency Questionnaire* (PQCQ) based on the following selected demographic characteristics: gender, race, and level of education.

To determine if relationships exist between the following selected demographic characteristics: gender, race, and level of education and the constructs of the *Program Quality Competency Questionnaire.*

2. Methodology

2.1. Participants

The target population of this study was YD professionals in the U.S. who work directly with children and youth from nine to nineteen years old. The researchers used a convenience sample of 1007 currently employed youth extension professionals from the U.S cooperative extension.

2.2. Data Collection

Upon approval of the study by the University Institutional Review Board (IRB), the researchers collected the email addresses of 5259 currently employed youth extension professionals from the website of their affiliated institution (U.S. cooperative extension) across the nation. Next, they received an email including an eight minutes-survey with a link to proceed if they agreed with the consent form. The researchers used Qualtrics online survey software for the survey. It was available to the participants up to three weeks, including the follow-ups. The non-respondents received up to two follow-up emails. Overall, 1007 individuals completed the survey, yielding a completion rate of 19.15%.

2.3. Measures

An instrument labeled "*Program Quality Competency Questionnaire* (PQCQ)" was used to capture the structural validity and reliability of the proposed staff training model. The PQCQ is a 42 item-scale that includes 6 scales measuring the perceptions of YD professionals about quality programming: program theory (12 items), child and youth development (9 items), staff training (6 items), social ecological theory (6 items), program management-environment (5 items), and program management-engagement (4 items). A 6 point Likert-type scale ("strongly disagree"=1, "disagree"=2, "slightly disagree"=3, "slightly agree"=4, "agree"=5; "strongly agree"=6) was used for all the scales. The scales were found to have high level of internal consistency (.83-.97) as measured by omega alpha reliability estimate.

2.4. Data Analysis

The data analysis was conducted according to the objectives of this study using SPSS version 25.0. Frequency analysis was used to describe the gender, age, and level of education of the study participants. Whereas, mean and standard deviation were used to describe the perceptions of the participants on the *Program Quality Competency Questionnaire* (PQCQ). Next, independent samples t-test was used to determine if differences exist between women and men's perceptions and between whites and non-withes' perceptions of the PQCQ scales in the study. To determine the level of statistical significance, the alpha level (α) was calculated dividing .05 by the six dependent variables which resulted in a *p*-value=.0083. The significance of the remaining analyses were assessed based on α=.05. In addition, one way-ANOVA was performed on the participants' responses to the *PQCQ* to examine whether they differed based on their level of education (less than bachelor degree, bachelor's degree, master's degree, and beyond master's degree).

Point biserial coefficient correlation was conducted to determine the strength and direction of the relationships between the gender (males and females) and the race (whites and non-whites) of the participants in the study and their perceptions of the constructs of the *PQCQ*. Spearman rho

coefficient correlation was conducted to determine if the constructs of the *PQCQ* had relationships with the level of education of the participants in the study.

3. Results

The demographic characteristics of the participants in the study are summarized in Table 1. As can be seen, 79.2% (*n*=789) of the participants were women, 91.6% (*n*=906) were whites, 60.4% (*n*=605) had a master's degree, and only 4.1% (*n*=41) had degrees lower than a bachelor's.

Table 1. *Description of the demographic characteristics of the participants in the study.*

Variables		Frequency	Percentage
Gender	Female	789	79.2
	Male	207	20.8
Race	White	906	91.6
	Non-white	83	8.4
Level of education	<Bachelor	41	4.1
	Bachelor	294	29.4
	Master's	605	60.4
	>Master's	61	6.1

The *Program Quality Competency Questionnaire* (PQCQ) had 6 latent constructs: program management-engagement, child youth development, program management-environment, social ecological theory, program theory, and staff training development. The means of these constructs ranged from 4.51 (agree) to 5.34 (agree; see Table 2). The program management-engagement construct had the highest mean score (*M*=5.34, *SD*=.68) while the staff training construct had the lowest mean score (*M*=4.51, *SD*=.91).

Table 2. *Mean and standard deviation of the constructs of PQCQ.*

Constructs	*n*	*Mean*	*Std. Deviation*
Program Management-Engagement	992	5.34	.68
Child Youth Development	1003	5.33	.63
Program Management-Environment	996	5.15	.70
Social Ecological Theory	985	5.11	.70
Program Theory	995	4.70	.75
Staff Training Development	1003	4.51	.91

Note: Interpretative 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.

The participants in the study were compared to see if they differed on their perceptions of the constructs of the *Program Quality Competency Questionnaire* using independent samples *t*-test (see Table 3). Based on the established alpha (α=.0083), the participants significantly differed on 4 constructs of the *PQCQ*. The perceptions of men (*M*=5.16, *SD*=.63) and women (*M*=5.58, *SD*=.61) were significantly different on "child youth development," *t* (982)=-4.51, *p*<.001. Men (*M*=4.58, *SD*=.79) and women (*M*=4. 74, *SD*=.74) significantly differed on their perceptions of "program theory", *t* (985)=-2.76, *p*=.006. Also, men (*M*=5.22, *SD*=.64) and women (*M*=5.37, *SD*=.69) perceived differently "program management-engagement", *t* (986)=-2.736), *p*=.006. Furthermore, the perceptions of men (*M*=4.36, *SD*=.93) and women (*M*=4.54, *SD*=.89) of "staff training" were different, *t* (990)=-2.48, *p*=.008.

Table 3. *Comparing men and women on their perceptions of the PQCQ.*

Variables	Male			Female			95%CI for mean differences	t	Df	p
	M	SD	n	M	SD	n				
Child youth development	5.16	.63	207	5.38	.61	787	(-.31)- (-.12)	-4.51**	982	.00
Program theory	4.58	.79	207	4.74	.74	780	(-.28)- (-.05)	-2.76*	985	.006
Program management-engagement	5.22	.64	207	5.37	.69	781	(-.25)- (-.04)	-2.74*	986	.006
Staff training	4.36	.93	206	4.54	.89	786	(-.33)- (-.05)	-2.48*	990	.008
Social ecological theory	5.04	.69	205	5.12	.70	776	-.18 -.03	-1.41	979	.154
Program management-environment	5.11	.66	207	5.16	.71	784	-.15 -.06	-.83	989	.408

*Note: *p<.0083, **p<.001.*

The perceptions of the participants in the study were also compared based on their race using independent samples *t*-test (see Table 4). The perceptions of white (*M*=5.08, *SD*=.70) and non-white (*M*=5.31, *SD*=.66) participants were different for only "social ecological theory", *t* (971)=2.82, *p*=.005.

Table 4. *Comparing whites and non-whites participants on their perceptions of the PQCQ.*

Variables	White			Non-White			95%CI for mean differences	t	Df	p
	M	SD	N	M	SD	N				
Social ecological theory	5.08	.70	890	5.31	.66	83	.07 -.38	2.82*	971	.005
Program theory	4.69	.76	897	4.91	.68	82	.05 -.39	2.54	977	.011
Child youth development	5.33	.62	903	5.35	.69	83	-.12 -.16	.335	984	.738
Staff training	4.51	.90	902	4.58	.96	83	-.13 -.28	.701	983	.483
Program management-environment	5.14	.71	900	5.25	.66	83	-.05 -.26	1.317	981	.188
Program management-engagement	5.34	.68	897	5.35	.73	83	-.14 -.17	.214	978	.831

Note: *p<.0083.

In addition, the participants' responses were compared based on their education level using analysis of variance (ANOVA); no differences were found.

The relationships between the constructs of the PQCQ

instrument and the demographic characteristics of the participants in the study were observed (see Table 5). The level of education of the participants in the study did not significantly correlate with their responses of the constructs of the instrument for $p<.05$. However, the gender of the participants did positively correlate with their responses of "program theory", $r=.09$, $p<0.01$; "child youth development", $r=.14$, $p<.001$; "staff training", $r=.084$, $p<.01$; and "program management-engagement", $r=.09$, $p<.01$. The race of the participants in the study also had a significant but negative relationship with their perceptions of "program theory," $r=-.08$, $p<.05$, and social "ecological theory," $r=.09$, $p<.01$.

Table 5. *Program theory as perceived by the selected demographic variables in the study.*

Variables	Gender			Race			Level of education		
	r	n	p	R	n	p	r	N	p
Program Theory	.088**	987	.006	-.081*	979	.011	.045	991	.161
Child Youth development	.142***	994	.000	-.011	986	.738	.022	998	.495
Staff Training	.084**	992	.008	-.022	985	.483	-.02	997	.532
Social ecological theory	.045	981	.158	-.090**	973	.005	.022	985	.494
Program Management environment	.026	991	.408	-.042	983	.188	-.021	995	.500
Program management engagement	.087**	988	.006	-.007	980	.831	-.018	992	.578

*Note: *$p<.05$, **$p<.01$, ***$p<.001$.*

4. Discussions

The study sample was characterized by lack of diversity with women ($n=789$; 79.2%) and whites ($n=906$; 91.6%) representing the largest number of the participants in the study. Similarly, as in (18), women made up 75.18% of the 4-H workforce in the U.S. Another study [17] reported that women and whites represented 80% and 85% of their sample, respectively.

The authors of this study suggest that workforce of PYD can largely benefit from men and minorities if it becomes more attractive to them. When recruiting, the administrators of PYD programs should consider targeting members of the underrepresented population. Diversity should be seeing as an opportunity for programs to address turnover. Many states reported a turnover rate up to 40% annually, which disrupts youth-adult relationships- "the core of effective youth programs" [16, p. 4]. Considering that the PQCQ was perceived differently by gender, diversity can also bring a variety of unique perspectives to discourses, which can result in more innovative ideas and solutions [19]. Other research should consider drawing a more diverse sample to continue looking at changes in the demographic characteristics of the population of the study.

The findings of this study also suggest that the participants in this study are highly educated with 66.80% of them having a master's degree or more. According to [14], high levels of staff education are associated with better program quality. Therefore, administrators of programs should capitalize on the high level of educational attainment of the YD professionals by gathering their inputs. The expertise and perspectives of staff members should be honored in determining the content and outcome of YD programs [20]. Administrators should also consider providing those with lower level of educational attainment opportunities for professional growth and development.

In addition, the findings suggest that staff training in "child and youth development" was critical to achieving program quality. Possessing a working knowledge of child and youth development theories may help them understand and support the natural process of healthy development. According to [21], learning about child and youth development may help youth professionals to focus on what is necessary and sufficient for children and youth to have a good chance to achieve economic self-efficiency, to have a healthy family and social relationships, and to contribute to their communities.

The findings also indicate that training in "social ecological theory" might be beneficial for youth development professionals who work in youth serving organizations that pursue program quality. The development of children and youth are shaped by complex interactions that occur across multiple settings and situations over long periods of time. As a result, knowledge in social ecological theory may help youth staff to better help children and youth develop good relations to self, others, and their broader world [22]. Staff can use relational strategies to increase participation and engagement [23]. Positive relations between staff and children/youth are among the key features of program quality [14].

The findings seem to indicate that that training for staff in the positive youth development field should also cover "program theory" in order to achieve program quality. A lack of a clear understanding of the connections between activities and the overall goals of programs and/or organizations might lead to ineffective youth programming. Program theory can guide the application of research or conceptual framework into practice [24].

The findings further suggest that training in "program management" for staff in the field of positive youth development is a determinant for achieving program quality. Managing children and youth who vary in abilities, interests, ages, and cultures can be challenging. Therefore, youth development professionals need to learn how to deal with dilemmas of youth work [25]. They need to gain knowledge on how to provide opportunities and supports for youth engagement and participation.

Administrators should provide training opportunities for professionals in the youth development and related fields in one or more components of the *Program Quality*

Competency Questionnaire (PQCQ) since most of the participants in the study agreed that these components can help them achieve program quality. Additionally, curriculum developers, program designers, and evaluators can make use of the *PQCQ* to design, develop, implement, and evaluate quality programs in the positive youth development and related fields. Furthermore, other research should continue studying the perceptions of the participants regarding the constructs of the *PQCQ*.

5. Conclusions

The study findings indicate a lack of diversity in the workforce of the positive youth development. The study participants were largely White/Caucasian women. An increase in diversity might be necessary to improve quality programming in the positive youth development field. Additionally, the study participants were highly educated. More than half of the study participants had a master's degree. The field of positive youth development can capitalize on the experience and knowledge of youth development professionals to continue advancing the field. The study participants agreed that the six staff training competencies are critical to deliver and sustain a quality program. The researcher recommends the use of the proposed conceptual framework to further enhance quality programming in the field of positive youth development and related fields.

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