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Validation of the Abbreviated Socio-Political Control Scale for Youth (SPCS-Y) Among Urban Girls of Color

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Abstract

This study tested and validated the factor structure of the abbreviated Sociopolitical Control Scale for Youth (SPCS-Y) among a sample of urban girls of color. Participants include (N=830) urban girls of color from a northeastern United States community. Confirmatory Factor analyses (CFA) were conducted using AMOS Structural Equation Modeling Software. Cluster groups were created using Latent Class Cluster Analysis (LCA) and tested using Multivariate analysis of covariance (MANCOVA) with conceptually related variables. CFA results supported the two-factor structure of the abbreviated SPCS-Y among the sample. Following the creation of cluster groups, MANCOVA analyses revealed significant heterogeneity among cluster groups of participants on neighborhood sense of community, social support, ethnic identity, and lower levels of drug use. Findings support the factor structure of the SPCS-Y and its use to measure empowerment among girls of color. Results contribute significantly to the field of social work and encourages the importance of promoting strengths-based approaches among girls of color. Implications for social work practice with girls of color are conveyed in light of the need for reliable measurement tools for practitioners.

Keywords Empowerment · Feminism · Measurement · Girls of color

Empowerment refers to a process by which individuals gain control and power over their lives and foster a critical understanding of their environment (Zimmerman, 1995). Empowerment theory (Zimmerman, 1995, 2000) has been used as a guide and framework for community based interventions to improve health outcomes (Holden, Crankshaw, Nimsch, Hinnant, & Hund, 2004; Lardier Jr., Garcia-Reid, & Reid, 2018a; Morton, Nelson, Walsh, & Zimmerman, 1996; Reid

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& Garcia-Reid, 2014), and promote advocacy and community organizing (Christens, Peterson, & Speer, 2014; Hamilton & Fauri, 2001; Speer, 2000). Though work in empowerment research has produced significant results, there is no universal standard in conceptualizing and operationalizing empowerment—as it has different meanings for people in various contexts (Christens & Peterson, 2012; Zimmerman, 1995). As a consequence, empowerment remains a largely untested theory in research (Peterson, 2014). Given that empowerment is context specific, it is essential for empowerment researchers to expand upon their understanding of empowerment processes and outcomes within different social contexts and varying groups of individuals.

Due to the multiplicative nature of being female, being a part of a historically marginalized racial and ethnic group (e.g. Black, Hispanic), and living in an underresourced, urban community, urban girls of color are often faced with a double or triple jeopardy (Clonan-Roy, Jacobs, & Nakkula, 2016; Crenshaw, 1991; Opara, 2018), thus contributing to poor health and educational outcomes compared to their White counterparts. Racially gendered forms of oppression may contribute to girls and women feeling less empowered than boys and men due to power



imbalances (Connell, 1987). Prillettensky, Nelson, and Pearson (2001) postulated that power and control are key factors in the fostering of resilience and empowerment, which have the capability to improve youth developmental outcomes. Hence, it is crucial to understand empowerment processes and outcomes that occur, as well as validate reliable measures to assess these concepts among adolescent girls of color.

Psychological Empowerment

Psychological empowerment (PE) is described as the individual level of analysis of empowerment and represents one's beliefs about their ability to apply control and one's understanding of their sociopolitical environment (Zimmerman, 1990). Psychological empowerment has been defined as a construct to comprise of intrapersonal, interactional, and behavioral components (Zimmerman, 1990, 2000). The *intrapersonal* component is defined as the way people perceive their own capability to influence social and political systems important to them, their self-view of control, and the level of power they possess within their environment (Zimmerman, 1990, 2000). This component is also referred to as the emotional component and has received the most investigation in current research on psychological empowerment (Zimmerman, 1990, 2000). The interactional component consists of ability that people have about their community that prepares them to succeed in mastering sociopolitical systems through organizational activities (Zimmerman, 1990, 2000). The behavioral component comprises of the actions that individuals actively engage in within a community that attempts to foster systemic change (Zimmerman, 1990, 2000). More recently, Christens (2012) proposed a fourth component, relational, which identifies the various different types of relationships (e.g. mentor-mentee, adult youth works) that can facilitate empowerment. Psychological empowerment has been identified as a primary goal and outcome of intervention and most empowerment researchers have focused on the intrapersonal component of psychological empowerment as being an indicator for empowerment as a construct. Therefore, to be consistent with previous research, in this study we operationalized empowerment as intrapersonal psychological empowerment. Sociopolitical control (SPC) has been speculated as the key indicator of the intrapersonal component of psychological empowerment (Peterson, Lowe, Hughey, Reid, Zimmerman, & Speer 2006; Zimmerman, 1990, 2000). Zimmerman and Zahinser (1991) developed the sociopolitical control scale (SPCS) to measure SPC and it has been widely used to measure the intrapersonal or emotional component of psychological empowerment (Peterson, Gilmore Powell, Hamme Peterson, & Reid, 2017).

Sociopolitical Control Scale (SPCS)

Zimmerman (1995) argued that measuring sociopolitical control within the intrapersonal component may be an indicator for PE overall in a specific context. Being able to understand one's sociopolitical environment refers to the capability to analyze individual and societal situations based on political and social circumstances (Zimmerman, 2000). This refers to an ability to identify and pinpoint those in power, understand how to acquire essential resources, and the factors that include their decision making (Christens & Peterson, 2012). Studies have indicated that sociopolitical control is an important indicator and factor related to psychological, behavioral, environmental, and social indicators such as ethnic identity, selfesteem, and sense of community (Christens & Peterson, 2012; Lardier Jr. et al., 2018a; Ozer & Schotland, 2011; Stewart, Riecken, Scott, Tanaka, & Riecken, 2008; Watts, Diemer, & Voight, 2011; Zimmerman, Ramirez-Valles, & Maton, 1999).

Zimmerman and Zahniser (1991) developed an integrative measure of sociopolitical entitled "Sociopolitical Control Scale (SPCS)", originally a 17-item scale, which has been validated as unidimensional (Holden et al., 2004; Holden, Evans, Hinnant, & Messeri, 2005) and multidimensional (Christens et al., 2016; Lardier Jr., Reid, & Garcia-Reid, 2018b; Peterson et al., 2011; Peterson, Speer, & Hughey, 2006; Smith & Propst, 2001). Two factors have been identified in the SPCS: leadership competence and policy control (Zimmerman & Zahniser, 1991). Leadership competency involves people's own perception of their ability to mobilize a group of people or groups, while policy control involves the perception and one's confidence about their ability to impact and inform policies in their environment (Cheryomukhin & Peterson, 2014). Peterson et al. (2006) found that the two-factor model of the original SPCS was a poor fit to data because of the mixed use of positively and negatively worded items used in the original instruments. The Sociopolitical Control Scale-Revised (SPCS-R; Peterson et al., 2006) included new items that replaced negatively worded items and was then found to support the hypothesized two-factor model of sociopolitical control that was comprised of leadership competence and policy control.

Beyond SPCS, Peterson et al. (2011) then developed the Sociopolitical Control Scale for youth (SPCS-Y) by creating new items and incorporating items from existing instruments that measure sociopolitical control (e.g. SPCS, the SPCS-R). Peterson et al. (2011) validated the factor validity and structure of the SPCS for youth (SPCS-Y) and



showed that this measure also encompassed two underlying dimensions (e.g. leadership competence and policy control), similar to the SPCS tested among adults. The SPCS-Y scale has been validated and used among youth populations in the United States (Christens, Krauss, & Zeldin, 2016; Lardier Jr. et al., 2018b; Peterson et al., 2011; Peterson et al., 2017) and international populations including Italian adolescents, (Vieno, Lenzi, Canale, & Santinello, 2014), Portuguese youth (Rodrigues, Menezes, & Ferreira, 2018), Malaysian adolescents (Cheryomukhin & Peterson, 2014), and adolescents in China (Wang, Chen, & Chen, 2011). Christens et al. (2016) validated an eightitem abbreviated version of SPCS-Y among Malaysian adolescents and found support for the multidimensionality of the abbreviated measure. Elsewhere, Peterson et al. (2017) validated the abbreviated SPCS-Y and included a phrase completion designed to provide more robust results using a Likert-type approach. The study found that the hypothesized eight-item abbreviated version of SPCS-Y had a better fit to the data than the original 17-item measure and scores from the phrase completion format revealed stronger factor loadings between latent variables (Peterson et al., 2017). Most recently, Lardier Jr. et al. (2018a) found support for the factor structure of the abbreviated eight item scale, when compared to the original 17-item version among urban youth of color. Despite such work, it is important to continue to use the SPCS-Y among various populations of young people especially among diverse groups. Since empowerment is a context specific theory, the validation of the SPCS-Y on multiple populations has been encouraged in order to ensure the measurement is accurate and conveys empowerment outcomes (Christens & Peterson, 2012).

Intrapersonal Empowerment and Girls of Color

Empowerment measures and processes have the potential to provide promising results for improving outcomes among youth. African American/Black and Hispanic/Latinx youth who reside in under-resourced communities may have difficulty feeling empowered due to multiple structural factors that have silenced their voices and marginalized them as a group (Christens & Speer, 2015). Furthermore, gender differences in empowerment processes and outcomes among youth may be present but are rarely explored (e.g. Peterson & Hughey, 2004; Speer, Peterson, Armstead, & Allen, 2013). Peterson and Hughey (2004) examined intrapersonal empowerment and community participation using gender as a moderator and found that among those participants who were actively engaged in their communities, females were more likely to have higher composite scores

of empowerment and higher sense of connection to their community than males in the study. Christens and Peterson (2012) found that among adolescents, females had higher levels of family cohesion, self-esteem, and sociopolitical control, which has a negative relationship with school importance and risk behaviors (e.g. sexual risk, drug use, violence related behaviors).

Psychological empowerment in the context of girls of color can lead to the critical examination of the intrapersonal component of empowerment-i.e., in order to assess how girls of color are able to develop cognition of sociopolitical environments in patriarchal societies. Such an examination can further serve as a catalyst to reduce risk behaviors (e.g. drug use, violent-related behaviors, sexual risk behaviors) that produce negative outcomes that affect this group. Historically, feminist and critical race theories have had the primary goals of: (a) emphasizing on women, girls and their experiences, (b) recognizing that under existing social arrangements, women are subordinated or oppressed and (c) ending unjust subordination (Collins, 2000). Relative to empowerment theory, feminist theory and analysis aids scholars to acknowledge gendered oppression among women and girls and inspire leadership and engagement in efforts to bring about systemic change (Turner & Maschi, 2015). Feminist theory implores a social justice focus with the goal of information, empowerment, and change through obtaining sociopolitical control (Allen, 2016; Allen & Jaramillo-Sierra, 2015; Few-Demo, Lloyd, & Allen, 2014). As the goals of empowerment theory and feminist theories (e.g. intersectionality, critical race theory) often overlap, empowering marginalized groups to challenge power structures and be aware of their sociopolitical stance, is the core foundation. Combined with theoretical measures in empowerment presents itself promising framework in examining the complexities of girls of color through quantitative methodology.

The Relationship Between Intrapersonal Component of Psychological Empowerment and Conceptually Related Variables

The association between empowerment and ethnic identity is slowly emerging in the literature (e.g. Lardier Jr. et al., 2018b; Molix & Bettencourt, 2010). As a way of forming their ethnic identity, African Americans/Black and Hispanic/Latinx adolescent females often use their immediate social environments to form opinions, ideas, and views about themselves and their group (Corneille, & Belgrave, 2007; Phinney & Ong, 2007). Ethnic identity refers to the sense of belonging and attachment to such a group including involvement in cultural activities, perceptions, behaviors, and feelings that one has due to such membership (Phinney & Ong, 2007). Empowered individuals have been found to be more connected to their ethnic identity and have a stronger sense



of racial and cultural pride due to having more connection to their race and cultural group (Molix & Bettencourt, 2010). For example, Lardier Jr. et al. (2018b) found that youth that reported higher levels of intrapersonal psychological empowerment and ethnic identity also reported higher levels of community participation, neighborhood sense of community, and had a greater risk perception of using drugs and alcohol.

Neighborhood sense of community or neighborhood belongingness refers to perceived attachment to one's community (McMillan & Chavis, 1986; Peterson, Speer, & McMillan, 2008). Higher levels of intrapersonal psychological empowerment have shown to be positively associated with sense of community, which is a significant finding especially for youth living in disorganized neighborhoods (Lardier Jr. et al., 2017). Youth of color residing in low socioeconomic communities often have difficulty developing empowerment processes because of restricted access to effective resources (Kirshner & Ginwright, 2012; Speer & Christens, 2012), especially for girls of color, who have to navigate through systems of patriarchal dominance. Strengthening the intrapersonal empowerment may increase critical awareness of one's community by enabling youth to become aware of socio-cultural resources that can improve their environment and meet their needs (Forenza & Lardier Jr., 2017). By engaging in more voluntary, community-based organizations, higher levels of neighborhood sense of community can be achieved leading to youth's ability to feel more empowered (Peterson & Reid, 2003; Speer, 2000). Peterson et al. (2011) found that higher levels of sociopolitical control and awareness not only increased neighborhood belonginess in youth but also predicted lower levels of alcohol and drug use among youth.

Supportive networks also have the ability to empower youth and foster an attachment to their community through the strengthening of interpersonal component of psychological empowerment. Studies within empowerment literature have begun to identify social support as an important indicator (Christen & Lin, 2014). For instance, Christens and Lin (2014) found that social support and community attachment both impacted the relationship between community participation and psychological empowerment. Evidence also suggests that support by social structures (e.g. family, peers, schools, neighborhood) have been found to serve as a buffer from adolescent exposure to stress and limited access to resources, which can lead to empowering processes, activities and outcomes (Hamme Peterson, Buser & Westburg, 2010). Furthermore, various studies have shown the importance of empowerment-based processes on risky behaviors among youth such as drug use (Holden et al., 2005), violence (Morrel-Samuels S, Zimmerman, Reischl, 2013), and sexual risk behaviors (Hamme Peterson, Buser & Westburg, 2010). Christens and Peterson (2012) found that social support predicted developmental outcomes in youth where intrapersonal empowerment strengthened the relationship between social support and risk factors (e.g. drug use, violent behaviors) and developmental outcomes (e.g. self-esteem, school importance).

Purpose

The use of "girls of color" reflects on how the identities of girls whom belong to historically marginalized groups (e.g. Black, Hispanic, Asian) and their experiences based on discrimination are different from the gender-based oppression that White girls experience. Empowerment processes and outcomes will vary from boys of color due to diverging experiences related to gender-racial specific norms and expectations that are placed on young girls of color (Collins, 1999). The present study, therefore, contributes significantly to empowerment literature by examining the factor structure of the SPCS-Y among girls of color residing in an urban community. The continued validation of empowermentbased scales on diverse youth within diverse context has been encouraged in the field of empowerment (Zimmerman, 1995). Testing the SPCS-Y among adolescent girls of color highlights the importance of collective identity among marginalized groups and contributes to the limited literature on methodological adaptions on a sample of urban girls of color.

In this study, we will test the two-dimensional structure among our sample of girls of color. We will then examine concurrent validity of the scale by examining the association between of the two-factor structure of SPCS-Y and conceptually related variables: ethnic identity, social support, neighborhood sense of community, and 30-day drug use. Our overall goal is to examine the uniqueness of administering a validated scale with a sample of girls of color and provide implications for future work with similar groups.

Methods

Data were acquired from two survey administrations of a community needs assessment within a northeastern U.S. urban school district. The purpose of conducting a needs assessment for this population was due to the high rates of crime, substance abuse, and low educational outcomes for the target city. Eight high schools in the community participated. To obtain a sample of high school students living within the community, survey participants were sampled through physical education and health classes, as these are required all four years of high school. Parent/guardian consent forms were sent home to all students. Students who signed a youth assent and returned signed parent/guardian



consent forms were eligible to take the survey. This non-probability sampling of students was given a one-hour period (i.e., nearly 2 class periods) during health and physical education to complete the student questionnaire. Questionnaires were self-administered in English to all students.

A total of (N=830) adolescent high school females who identified as either African American/Black only (41%) and identified as Non-White Hispanic/Latinx only (59%) were used for this study. Among females, 40% were between the 13-15 years of age and 60% were between 16-18 years of age. Female students were evenly split among this sample between 9th (25.3%), 10th (23.8%), 11th (24.2%), and 12th (26.1%) grades. Sixty-nine percent of the sample received free or reduced lunch, an indicator for low socioeconomic status (Harwell & LeBeau, 2010).

Measures

Sociopolitical Control

Sociopolitical Control Scale for Youth (SPCS-Y) was used to measure the intrapersonal component of psychological empowerment. Several studies support SPCS-Y as a two-factor measure, encompassing both leadership competence and policy control (e.g., Christens et al., 2016; Lardier Jr. et al., 2018b; Peterson et al., 2011). Recent investigations tested and validated an abbreviated version of the SPCS-Y among both Malaysian adolescents (Christens et al., 2016) and urban youth of color (Lardier Jr. et al., 2018a). These studies supported the bidimensional nature of this scale, encompassing both leadership competence and policy control (Christens et al., 2016; Lardier Jr. et al., 2018b).

For the current study, both the eight-item measure of leadership competence (Cronbach's α = .83; mean [M] = 3.14, standard deviation [SD] = 1.47) and nine-item measure of policy control (Cronbach's α = .85; M = 2.71, SD = 1.57) were combined (Cronbach's α = .89; M = 3.70, standard deviation [SD] = .60). Respondents were asked to indicate their level of agreement with statements such as "I am a leader in groups" and "I can usually organize people to get things done". Responses were recorded using a five-point Likert-type scale ranging from the *Strongly disagree* (1) to *Strongly agree* (5).

Conceptually Related Variables

Social Support

Social support was measured using The Social Support for Adolescents Scale, which consists of eight items (Cronbach's $\alpha = .78$; M = 3.08, SD = .80). This measure evaluates social support among adolescents from a variety of sources, including friends, parents, and school personnel. Cauce,

Felner, and Primavera (1982) validated this scale among a sample of high-risk adolescents and discovered three support dimensions within the scale: Family (e.g. parents, relatives), Formal (e.g. teachers, principals, state workers), and Informal (e.g. friends, peers) support. Respondents are asked to indicate the level of helpfulness provided by each source, on a Likert-type 4-point scale from (1) *not at all helpful to* (4) *very helpful*.

Sense of Community

Neighborhood Sense of Community (McMillan & Chavis, 1986) was measured using the Brief Neighborhood Sense of Community Scale (BSCS). Several studies have examined the BSCS as a four-factor structure (e.g., Peterson et al., 2008; Lardier, Reid, & Garcia-Reid, 2018c). Most recently, Lardier Jr. et al. (2018c) tested the BSCS among youth of color. These authors tested the factor structure of this scale and found that this measure encompasses four broad dimension of *membership*, *emotional connection*, *needs fulfillment*, and influence (Cronbach's alpha for the overall BSCS was .85 (M = 3.08, SD = .80). For the current study, participants were asked to respond using a five-point Likert-type scale (Strongly disagree = 1, Strongly Agree = 5). Responses were totaled to represent higher levels of neighborhood SOC (Cronbach's $\alpha = .85$; M = 23.84, SD = 8.61).

Ethnic Identity

The Multigroup Ethnic Identity Measure (MEIM) is a twenty-item scale used to measure how individuals identify with their identity (Phinney & Ong, 2007). Sample questions include "I have spent time trying to figure out more about my ethnic group?" The MEIM was designed and has been used among multiple ethnic groups (Phinney, 1989; Phinney & Ong, 2007). The MEIM has been widely validated among youth across the United States (Kazarian & Boyadjian, 2008), with a Cronbach alpha ranging from .71 to .92 (Ponterotto, Gretchen, Utsey, Stracuzzi, & Saya, 2003; Phinney & Ong, 2007). Responses were recorded using a 4-point Likert scale ranging from strongly disagree (1) to strongly agree (4). Responses were totaled to represent higher levels of ethnic identity (Cronbach's α .87 M = 34.45, SD = 6.59).

Thirty Day Drug Use

The measurement for 30-day alcohol, tobacco, and marijuana use among youth comprised of three survey items adapted from the National Youth Risk Behavior Survey (Kann et al., 2016). The goal of the survey was to determine 30-day drug and alcohol use among youth. The specified drugs included cigarettes, alcohol, and marijuana. Scale scores were the mean of responses on the three items, with



higher scores indicating greater frequency of use (Cronbach's $\alpha = .78$; M = 4.28, SD = 2.31). Questions assessing 30-day drug use habits including: During the past month, on how many days did you drink alcohol? (Kann et al., 2016). Based on prior research, 30-day drug use variable construct has been identified to have a Cronbach alpha ranging from .89 to .96 (Hamme Peterson, Buser, & Westburg, 2010).

Analytic Approach

Little's missing completely at random (MCAR) test was employed to examine and determine the level and type of missing data (Little & Rubin, 2014), revealing that data were most likely not MCAR, due to a significant Chi square result ($\chi 2 = [\text{degree of freedom } [\text{df}] = 25] 36.78, p < .001]$). Maximum likelihood (ML) methods of imputation in AMOS SEM software were used to handle missing data.

Confirmatory factor analyses (CFA) were employed to assess the factor-structure of the SPCS-Y as a multidimensional measure among a sample of adolescent girls of color. Several indicators of model-fit were considered. Goodness of fit index (GFI) and comparative fit index (CFI) with values greater than .95 are desirable (West, Taylor, & Wu, 2012). Smaller RMSEA values that are less than .09 are desirable (i.e., RMSEA that are $\leq .05 = \text{good fit}$, .05 - .08 = acceptable fit and .08 - .10 = unacceptable fit; West, Taylor, & Wu, 2012). Cronbach's alpha was used (and CIs) to assess internal consistencies of the dimensions. Discrepancy of fit (discrepancy/df) indices less than 2 are preferred (West, Taylor, & Wu, 2012).

Three models were examined through CFA:

Model 1 examined the original 17-item SPCS-Y as a unidimensional model.

Model 2 examined the original 17-item SPCS-Y as a bidimensional model.

Model 3 examined the abbreviated eight-item SPCS-Y as a bidimensional model.

Results

Confirmatory Factor Analysis

See Table 1 for the correlation matrix of main analytic variables including conceptually related variables. See Table 2 for model fit indices and Table 3 for the standardized factor loadings for all three models. Results from model 1, which included all 17-items loading onto one latent-unidimensional construct showed adequate model-fit (West et al., 2012). The next model (model 2), included again all 17-items; however, these items loaded onto two separate latent constructs—i.e., leadership competence and policy control. The first eightitems loaded onto one single leadership competence construct (i.e., items one through eight) and the last nine items loaded onto one policy control construct (i.e., items nine through 17). As illustrated in Table 3, model 2 had slightly better model-fit to the sample data, when compared to model

Table 2 Model fit statistics for confirmatory factor analyses of the Sociopolitical Control Scale for Youth (N=830)

Measures of fit	Model 1	Model 2	Model 3
$\overline{x^2}$	1017.77	583.21	74.39
CMIN/df	6.34	4.94	2.50
df	119	118	19
p-value	.000	.000	.000
GFI	.87	.93	.98
AGFI	.83	.93	.88
TLI	.80	.90	.87
CFI	.83	.91	.97
RMSEA	.09	.63	.05
	90% [.08–.09]	90% CI [.06–.07]	90% CI [.04–.07
AIC model	1085.77	653.22	108.39
AIC Saturated Model	306.00	306.00	72.00
BIC	1252.63	824.99	191.83

Table 1 Pearson correlation matrix and descriptive statistics for main study variables (N = 830)

	1	2	3	4	5	6
1. Policy control		.34**	.11**	.15**	08**	.19**
2. Leadership competence			.15**	.20**	11**	.19**
3. Sense of community				.21	01**	.17**
4. Ethnic identity					22**	.31**
5. Social support						20**
6. Thirty-day Drug use						
Mean (SD)	2.71 (1.56)	3.14 (1.47)	23.84 (8.61)	34.45 (6.59)	3.08 (.80)	4.28 (2.31)
Cronbach alpha	.80	.85	.85	.88	.78	.78

^{*}p<.05



^{**}p<.001

Table 3 Item loadings for CFA SPCS-Y (N = 830)

Item	Model 1	Model 2 (two factor model)		Model 3 (two factor model abbreviated)	
		Leader comp	Policy control	Leader comp	Policy control
1. I am often a leader in groups	.54	.65		.65	
2. I would prefer to be a leader rather than a follower	.47	.57			
3. I would rather have a leadership role when I'm involved in a group project	.54	.61		.61	
4. I can usually organize people to get things done	.59	.65		.64	
5. Other people usually follow my ideas	.55	.65			
6. I find it very easy to talk in front of a group	.48	.50		.54	
7. I like to work on solving a problem myself rather than wait and see if someone else will deal with it	.47	.50			
8. I like trying new things that are challenging to me	.59	.60			
9. I enjoy participation because I want to have as much to say in my community or school as possible	.63		.64		
10. Youth like me can really understand what's going on with my community or school	.53		.55		.56
11. I feel like I have a pretty good understanding of the important issues which confront my community or school	.64		.65		
12. Youth like me have the ability to participate effectively in community or school activities and decision making	.58		.60		.65
13. My opinion is important because it could someday make a difference in my community or school	.64		.67		
14. There are plenty of ways for youth like me to have a say in what my community or school does	.54		.61		.60
15. It is important to me that I actively participate in local teen issues	.58		.65		
16. Most school or community leaders would listen to me	.58		.58		.61
17. Many local activities are important to participate in			.63		

1. Last, model 3 was tested, which included eight-items loading onto two separate latent constructs – i.e., four items of leadership competence and the four-items of policy control. Model 3 revealed superior model fit to the sample data, when compared to model 1 and model 2. The GFI, CFI, and TLI for model 3 all were within the cutoff criterion for acceptable model fit. In addition, RMSEA fell within the identified cutoff range, with the upper bound of the 90% confidence interval not exceeding .08 (West et al., 2012), which further reveals an acceptable model fit. Descriptive statistics for the eight-item scale are as follows: four-item leadership competence dimension (Cronbach's $\alpha = .70$; M = 3.75, SD = .74); the four-item policy control dimension (Cronbach's $\alpha = .70$; M = 3.55, SD = .73); and the overall abbreviated PE scale (Cronbach's $\alpha = .79$; M = 3.60; SD = .66).

Latent Class Cluster Analysis and Multivariate Analysis of Covariance

Following CFA, latent class cluster analyses and multivariate analysis of covariance (MANCOVA) were conducted to examine variation on observed indicators of two components

of intrapersonal psychological empowerment (or PE). Indexes were created for both dimensions of the intrapersonal psychological empowerment (i.e., leadership and policy control). Indexes were transformed into quintiles so that data were standardized and maintained ordinal response scales for the purpose of latent class modeling. Latent Gold 5.1 (Vermunt & Magidson, 2016) statistical software was used to examine the latent class clusters models, opposed to mean-split methods of creating subgroups, which tends to be crude and statistically unreliable, when compared to latent class or person-centered analyses (Vermunt & Magidson, 2016). Ten cluster groups were modeled, which is in line with recommendations put forward by Vermunt and Magidson (2016).

Model fit (see Table 4 for model-fit statistics) was assessed for each of the latent class cluster models to determine the most parsimonious and best fitting cluster model to the sample data, as well as the model that captured the largest amount of total association between observed indicators. The likelihood ratio Chi squared statistics (L^2), the Bayesian Information Criterion (BIC), Akaike Information Criterion (AIC), number of parameters, and the classification error



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Table 4 Latent class analysis model fit statistics for intrapersonal PE

	BIC(LL)	AIC(LL)	Number of parameters	L^2	df	p -value (bootstrap L^2)	Class error
1-Cluster	5231.17	5193.40	8	234.23	40	< .001	.01
2-Cluster	5086.83	5030.17	12	63.00	36	< .001	.06
3-Cluster	5080.33	5004.79	16	29.62	32	.59	.06
4-Cluster	5105.74	5011.31	20	28.14	28	.46	.27
5-Cluster	5128.52	5015.21	24	24.04	24	.46	.23
6-Cluster	5149.69	5017.49	28	18.32	20	.56	.22
7-Cluster	5175.36	5024.27	32	17.10	16	.38	.27
8-Cluster	5197.41	5027.44	36	12.27	12	.42	.21
9-Cluster	5228.85	5039.99	40	16.82	8	.21	.34
10-Cluster	5249.43	5041.69	44	10.52	4	.51	.28

Bold text indicates the preferred model

BIC Bayesian information criterion, AIC Akaike information criterion, LL log likelihood, L2 likelihood ratio Chi square statistic

were used as comparative indicators to assess model fit. Interpreter indicators of model fit displayed that the four-cluster model provided the most appropriate model fit to the sample data. For the four-cluster model, fit statistics were as follows: $L^2 = 28.14$, BIC = 5105.74, AIC = 5011.31, and the bootstrap L^2 p value=.46. Non-significance of the bootstrap L^2 p-value indicates adequate model fit. The four-cluster model provided a standard R^2 value of .61, indicating that these four latent class clusters account for a larger proportion of the variance in the subscales of intrapersonal psychological empowerment (or PE).

Individual cases were assigned to latent class clusters using standard-modal classification (Vermunt & Magidson, 2016). Cluster one (n=272) is labeled "Low PE", reflecting lower overall policy control (M=1.25, SD=1.30) and slightly higher mean scores of leadership (M=2.19, SD=.96); albeit, still lower than scores in other cluster groups. Cluster 2 (n=252) is labeled "Moderate Policy Control and Limited Leadership", reflecting moderate ranges of both policy control (M=3.19, SD=1.29) and leadership (M=2.19, SD=.83). Cluster 3 (n=209) is labeled "High PE" indicating higher mean scores of both leadership (M=4.71, SD=.44) and policy control (M=4.55, SD=.59). Cluster 4 (n=102) is labeled "low policy control and high leadership", based on lower overall scores of policy control (M=1.41, SD=.59) and leadership (M=4.71, SD=.38).

Membership of the four clusters were tested for meaningful differences on demographic characteristics including grade level, race/ethnic identity, and using free or reduced lunch. No significant differences were noted between cluster groups and free or reduced lunch ($\chi^2(4) = 1.67$, p = .77) and grade in school ($\chi^2(12) = 13.66$, p = .32). However, variability was present between those students who identified primarily as African American/Black or Hispanic/Latina(o) racial-ethnic identity ($\chi^2(4) = 53.97$, p < .001). Specifically,

59% of the sample identified as Hispanic/Latinx and 41% African American/Black. Within each cluster, those who identified as Hispanic/Latinx were much more likely to be within cluster 1 of "Low PE" (74.9%), whereas African American/Black were more evenly distributed between cluster 2 of "Moderate Policy Control and Limited Leadership" (45%) and cluster 3 of "High PE" (37%).

Differences between groups were examined according to the intrapersonal PE latent classes on a set of conceptually related variables: neighborhood sense of community, social support, ethnic identity, and 30-day drug use. Table 5 displays results of a MANCOVA with intrapersonal PE clusters as the grouping factor and neighborhood sense of community, social support, ethnic identity, and 30-day drug use as the dependent variables, with Hispanic/Latinx and African American/Black identified as a covariate. Results of the MANCOVA indicated that after controlling for demographic differences, significant heterogeneity was present between intrapersonal PE latent class cluster groups and neighborhood sense of community, social support, ethnic identity, and 30-day drug use.

To further understand these results, post hoc analyses were conducted next to assess differences on these variables between intrapersonal psychological empowerment (or PE) latent class cluster. Pairwise univariate comparisons were used. Participants in "High PE" reported higher mean scores on social support when compared to cluster groups one "Low PE", cluster group two "Moderate policy control and Limited leadership", and cluster group four "Low policy control and High leadership". For both ethnic identity and neighborhood sense of community, cluster group three "High PE" and cluster group four "Low policy control and high leadership" had higher mean composite scores when compared to cluster groups one "Low PE" and two "Moderate Policy Control and Limited Leadership". Cluster groups



Table 5 MANCOVA Results between policy control and leadership of the Sociopolitical Control Scale for Youth on social support, ethnic identity, neighborhood sense of community, and 30-day drug use (*N*=830)

	Social support		Ethnic identity		Sense of community		30-Drug use	
	Mean (95% CI)	SE	Mean (95% CI)	SE	Mean (95% CI)	SE	Mean (95% CI)	SE
Cluster 1: Low PE (31%)	23.88	6.27	52.45	9.06	19.17	3.86	4.47	2.33
Cluster 2: Moderate policy control and Limited leadership (30%)	23.60	6.54	53.06	8.96	19.61	4.04	4.43	2.88
Cluster 3: High PE (25.2%)	26.94	6.40	55.86	8.62	20.74	4.14	4.04	2.15
Cluster 4: Low policy control and High leadership (12.2%)	24.50	5.51	55.69	7.75	20.63	4.05	3.90	1.33
Univariate F (3, 826)	12.65**		8.65**		8.47**		2.59*	
Mean different, $p < .05$	3 > 1, 2, 4		3, 4 > 1, 2		3, 4 > 1, 2		1, 2 > 3, 4	

PE Psychological empowerment

one "Low PE" and two "Moderate Policy Control and Limited Leadership" had higher mean composite scores on substance use when compared to cluster groups three "High PE" and four "Low Policy Control and High leadership".

Discussion

Although psychological empowerment remains largely understudied, it is beginning to emerge as a key construct in understanding empowerment processes and outcomes among youth and adults. Similar to previous studies that have examined the abbreviated versions of the SPCS-Y (e.g. Christens et al., 2016; Lardier Jr. et al., 2018a; Peterson et al., 2017), our findings revealed that the abbreviated eight-item scale was a better fit than the original 17-item version. Findings from this study also support the two-factor model of the SPCS-Y as having a superior model fit compared to the one factor SPCS-Y. Our study adds to not only empowerment research but to feminist literature as a potential to use for examining empowering processes for girls of color. Empowerment researchers should consider continued investigation of the abbreviated SPCS-Y among young girls of color in heterogenous contexts in the United States and internationally.

There were distinct differences among the sociopolitical control profile groups on measures of social support, neighborhood sense of community, ethnic identity, and drug use. For example, higher composite scores of sociopolitical control scale domains: policy control and leadership competency, were a significant indicator of social support, ethnic identity, and neighborhood sense of community. Consistent with previous research that has explored the role on empowerment and neighborhood belonginess (e.g. Christens & Lin,

2014; Lardier Jr. et al., 2018a; Peterson et al., 2011; Speer et al., 2013), this finding supports the notion that engaging young girls of color for roles that allow for the promotion of leadership and an understanding of their political environment, can be fostered through deeper supportive connections with adults in their community.

Interestingly, girls in the study who had higher scores of leadership and lower levels of policy control were associated with lower levels of drug use. Results are consistent with recent literature (e.g. Lardier Jr. et al., 2018a), and point towards the role of promoting leadership roles rather than political engagement and control among girls of color that foster and nurture empowerment processes. Surprisingly, girls who had moderate policy control and limited leadership had higher mean scores on drug use. This suggests the importance of fostering leadership processes and activities for girls of color that can buffer the negative effects of residing in under-resource, urban neighborhoods.

Through a strengths-based approach, nurturing resiliency among girls of color living in urban and under resourced neighborhoods may operate as protective strategies that allow girls to persevere through adversity in under-resourced environments (Clonan-Roy et al. 2016; Opara, Lardier Jr., Reid, & Garcia-Reid, 2019). Similarly, engaging girls of color in leadership roles can allow girls to develop as critical activists and thinkers who are able to engage behaviors and activities that foster critical consciousness, nurture their resilience, and boost their self-worth; thus, buffering the negative effects of living in an economically disadvantaged community. Though the burden of change should not be primarily placed on the shoulders of girls of color whom belong to historically marginalized groups, allowing organizations that promote empowerment-based approaches can produce positive outcomes in adolescent females in communities



p < .05

^{**}p<.001

whom are otherwise ignored. The findings contribute significantly to empowerment literature and has demonstrated higher levels of intrapersonal psychological empowerment but more specifically, higher levels of leadership competency, are a key contributor to reduction in risky behaviors such as illicit and licit drug use among urban girls of color.

Implications and Limitations

Results from the study have important programmatic, research, and practice implications for girls of color living in under-resourced, urban communities. The first implication of the study's findings is that sociopolitical control using the sociopolitical control scale for youth (SPCS-Y) can be measured and conceptualized as a two-factor abbreviated scale among urban girls of color. Results contribute significantly to empowerment and feminist theory and urge social work researchers to adopt new measures such as the abbreviated SPCS-Y, to measure empowerment among young girls of color in the United States. By contributing to empowerment research, findings seek to highlight the identities of girls of color and portray their experiences through a strengthsbased lens and approach. By introducing a scale that has the ability to measure empowerment, this allows for prevention researchers and community leaders to develop programs that promote empowerment processes and outcomes. Researchers working with girls of color in under-resourced communities could utilize the abbreviated version of SPCS-Y which could be particularly important for the development of strengths-based youth programs in order to understand how girls in particularly can engage in sociopolitical control and what factors either nurture or inhibit such empowering processes.

Supporting the advancement of girls of color, whose backgrounds have been historically marginalized, to engage in roles that not only support leadership and political engagement but engage in spaces where they are socially supported by family, peers, and adult allies who can assist in nurturing their needs. As girls of color who belong to marginalized backgrounds and identities are often forced to be resilient, empowerment researchers can begin to explore the role of political engagement with the fostering of resilience. Clonan-Roy et al. (2016) suggest in their feminist analysis, "understanding sociopolitical environments can be viewed as the engagement of resistance for liberation, operate as self-righting tendencies or protective practices that allow one to persevere through adversity and challenging experiences" (pg. 112). Empowerment researchers can begin to highlight this view using empirical evidence, to encourage programming on girls of color and engage in methods that foster critical consciousness thinkers which will can support their

resilience, bolster their confidence, instill pride (i.e. racial, ethnic and gender pride), thus improving developmental outcomes. Engaging in organizational, community-based activities that foster empowerment should be embedded in deep cultural values and principles, that allow for girls to simultaneously become more attached to their community and cultural, while challenging structural factors that have placed them historically at risk. For girls of color, who have to challenge and combat both sexist and racist ideologies, such challenges can affect their sense of self as in relation to the way society views them (Opara et al., 2019). Different than boys of color, who similarly challenge racial and ethnic specific discrimination, girls of color have to negotiate their identity through gender-based stereotypes which can be multiplicative given their belonging to multiple intersections (e.g. race, gender, class).

Fostering empowerment processes in girls of color through involving girls in the creation and evaluation, of youth community-based interventions that can produce significant empowerment outcomes such as engaging in healthy promoting behaviors (Zimmerman, 1990). In order for practitioners and researchers to effectively design and evaluate programs for girls of color, adequate measurements in studying empowerment outcomes such as youth sociopolitical control is needed. The study findings support the use of the abbreviated version of SPCS-Y as an appropriate measurement tool for empowerment research with girls of color.

Although our study contributes significantly to empowerment literature, there are few limitations. First, due to the cross-sectional survey design, a cause and effect relationship from predictors to empowerment processes and outcomes cannot be established. In addition, the current study used a scaling response system to obtain data. Based on the work of Peterson et al. (2017) using phrase completion format in addition to Likert type scaling responses, may help contribute to the validity of empowerment measures. Further investigation on empowerment outcomes using scale responses in addition to phrase completion format is warranted. Furthermore, girls of color are not a homogenous group and have significant within group differences. Although we included girls of color in our study without examining differences between the groups, we urge for researchers to test the differences in heterogeneity among girls of color in future work. Given the various ethnicities within the Hispanic/Latinx population (e.g., Dominican, Mexican, Puerto Rican) and Black population (e.g. African American, Caribbean, African), we urge for researchers to collect and test within group variations among distinct ethnicities which may highlight significant differences in how empowerment is operationalized by ethnic group.



Conclusion

Results contribute significantly to empowerment and feminist theory research and urge for future validation and use of the analysis of the abbreviated SPCS-Y among young girls of color in diverse contexts. This study encourages researchers to support the advancement of girls of color, whose backgrounds have been historically marginalized, to engage in roles that not only support leadership and political engagement but engage in organizational activities where they are supported by family, peers, and adult mentors who can assist in nurturing their needs. Through a feminist lens, understanding sociopolitical environments can operate as a buffer in under-resourced environments that allow girls of color to succeed despite experiences of adversity (Clonan-Roy et al., 2016). Empowerment researchers can begin to highlight this view using empirical evidence to encourage programming on girls of color and engage in participatory methods that foster critical consciousness thinking, which can support resilience, bolster confidence, and instill pride (i.e. racial, ethnic, and gender pride) in young girls of color, thus improving developmental outcomes. Strengthening ethnic identity among girls of color has been seen consistently in the literature to serve as a buffer in the engagement of risky behaviors. Engaging in organizational activities that foster empowerment should be embedded in deep cultural values and principles that allow for girls to simultaneously become more attached to their community and self-identity, while challenging systemic factors that have placed them at risk.

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Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

Ethical Approval The authors of this manuscript have complied with APA ethical principles in their treatment of individuals participating in the research, program, or policy described in the manuscript. The research has been approved by Montclair State University.

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