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ORIGINAL ARTICLE

Profiles of Resilience and Psychosocial Outcomes among Young Black Gay and Bisexual Men

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Abstract Young Black gay/bisexual men (YBGBM) are affected by contextual stressors—namely syndemic conditions and minority stress—that threaten their health and well-being. Resilience is a process through which YBGBM achieve positive psychosocial outcomes in the face of adverse conditions. Self-efficacy, hardiness and adaptive coping, and social support may be important resilience factors for YBGBM. This study explores different profiles of these resilience factors in 228 YBGBM in New York City and compares profiles on psychological distress, mental health, and other psychosocial factors. Four profiles of resilience were identified: (a) *Low self-efficacy and hardiness/adaptive coping* (23.5%); (b) *Low peer and parental support* (21.2%); (c) *High peer support, low father support* (34.5%); and (d) *High father and mother support, self-efficacy, and hardiness/adaptive coping* (20.8%). YBGBM in profile 1 scored markedly higher on distress (d = .74) and lower on mental health functioning (d = .93) compared to men in the other profiles. Results suggest that self-efficacy and hardiness/adaptive coping may play a more important role in protecting YBGBM from risks compared to social support and should be targeted in interventions. The findings show that resilience is a multidimensional construct and support the notion that there are different patterns of resilience among YBGBM.

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Introduction

Young Black gay and bisexual men (YBGBM) are disproportionately affected by a range of negative psychosocial and physical health outcomes, including poor mental health, HIV/AIDS and other sexually transmitted infections, and poverty (Millett, Flores, Peterson & Bakeman, 2007; Millett et al., 2012). These problems constitute a syndemic that exacerbates poor health among YBGBM (Mustanski, Garofalo, Herrick & Donenberg, 2007; Penniman Dyer et al., 2012; Wilson et al., 2014) and other vulnerable populations (Batchelder, Gonzalez, Palma, Schoenbaum & Lounsbury, 2015; Halkitis et al., 2012; Mimiaga et al., 2015; Nehl, Klein, Sterk & Elifson, 2015; Stall, Friedman & Catania, 2007). Through both structural and interpersonal mechanisms, minority stress shapes outcomes among YBGBM by exposing them to race- and sexual orientation-based stigma and lower levels of personal and social resources that can be used to combat stress (Hatzenbuehler, 2010; Meyer, 2010). Syndemic conditions and minority stress can be considered features of the social milieu in which YBGBM develop; they constitute contextual stressors and contribute to the risk environment that threatens the health and well-being of YBGBM.

Resilience has been posited as an important, but underresearched, construct in understanding why many men who have sex with men (MSM) experience positive health outcomes and/or transition from poor to healthy behaviors, such as giving up substance use (Herrick et al., 2011, 2013). Focusing on resilience may provide an enhanced understanding of factors that protect YBGBM from poor

psychosocial outcomes in spite of experiencing stress. This research can also point to new directions for interventions aimed at improving mental and physical health among YBGBM (Herrick et al., 2011). However, resilience is a nebulous concept in psychology, with no single agreed-upon definition and with multiple approaches to exploring how resilience operates (Kolar, 2011; Masten & Wright, 2009; McGeary, 2011). One basic way of conceptualizing resilience has been put forth by Masten (2001), who stated that resilience "refers to a class of phenomena characterized by good outcomes in spite of serious threats to adaptation or development" (p. 228). Masten's definition implies that no singular concept encompasses resilience; rather, it is multi-dimensional, dynamic over the lifecourse, and context-dependent (Fergus & Zimmerman, 2005; Herrick, Stall, Goldhammer, Egan & Mayer, 2013; Kolar, 2011; Masten & Wright, 2009; Meyer, 2010; Rutter, 1987).

Necessary ingredients for resilient processes to occur include the presence of a threat that can dampen positive growth and psychosocial development and the positive adaptation to the threat (Masten, 2001; Rutter, 1987). Therefore, resilience is a product of social and environmental contexts, and personal outcomes. As a result, it is often conceptualized in terms of observable processes of individual adaptation in the face of risk. Psychological research has primarily examined resilience in three ways. First, resilience has been thought of as counteracting a risk factor. This *compensatory* model of resilience is also understood as the main-effects approach to understanding resilience, as resilient processes are posited to contribute to positive outcomes regardless of level of risk. Second, resilience has been conceptualized as *protective* against the onset of stress. In this approach, individuals have psychological attributes that allow them to feel unthreatened by stressors they face or have access to resources that reduce the perceived threat level. This conceptualization can also be understood as stress-buffering or having an interactive/moderator effect. Third, a *challenge* model has been put forth in which resilience is thought of as being associated with positive outcomes in the context of moderate risk, but not high or excessive levels of risk. This conceptualization of resilience suggests that if a person is exposed to too much of a risk factor, overcoming it may not be possible (Fergus & Zimmerman, 2005; Herrick, Stall, Goldhammer et al., 2013; Masten, 2001; Masten & Wright, 2009; Meyer, 2010; Rutter, 1987; Seery, 2011).

Research studies examining resilience have frequently operationalized the construct in terms of assets and/or resources (Fergus & Zimmerman, 2005; Masten & Wright, 2009). Assets can be defined as personal or psychological attributes such as competence or intelligence, whereas resources are considered external to the person and can include social support and social capital. Across the resilience literature, however, several assets and resources have consistently emerged as importance resilience factors. These include the related constructs of self-efficacy, hardiness and adaptive coping, and social support (Fergus & Zimmerman, 2005; Masten & Wright, 2009; McGeary, 2011; Meyer, 2010; Rutter, 1987; Seery, 2011).

Self-Efficacy

Self-efficacy is defined as a person's beliefs about his or her capacity to influence his or her quality of functioning and the events that affect his or her life. It is a personal judgment regarding how individuals can control their behavior to successfully perform tasks currently and in the future (Bandura, 1994, 2001). Self-efficacy is considered highly related to the concepts of control, mastery, and agency. It can be described in terms of its magnitude (i.e., a person's estimate of his best possible performance) and generality (i.e., how global vs. context-dependent are perceptions of self-efficacy). Self-efficacy has been described as a cognitive process, making it an asset in the language of resilience research. Though considered a personal attribute, self-efficacy is strongly influenced by psychological and physiological states, previous successes and failures in performing a specific behavior, observed performances of others, and social norms (Bandura, 1982, 1986). Thus, self-efficacy is affected by developmental contexts and features of the social environment.

Within resilience theory and research, self-efficacy is considered a central concept. This may be due to the idea that self-efficacy is integrated into the *effectance motivation system*, the cognitive system in which people, when successful in adapting to environmental demands, experience pleasure and are motivated to adapt to future demands (White, 1959). The positive feelings experienced when successfully responding to risks, and achieving positive outcomes in spite of risks, translate into enhanced self-efficacy and greater resilience (Masten & Wright, 2009). For YBGBM, feelings of self-efficacy and control may protect these young men from depression, feelings of low self-esteem, and helplessness, which can result from the risks (i.e., syndemic conditions and minority stress) they experience. For example, one study of low income, urban Black male adolescents revealed that high levels of self-efficacy were negatively related to psychological symptoms and poor mental health outcomes (Zimmerman, Ramirez-Valles & Maton, 1999). Findings from the study suggested both a main effect and interaction effect for the role of self-efficacy in reducing the negative impact of helplessness on mental health. This research indicates that self-efficacy may play both compensatory and protective roles as a resilience factor among YBGBM.

Hardiness and Adaptive Coping

The concept of hardiness is also central to views about psychological resilience, and, like self-efficacy, it refers to attributes that individuals have that influence how they adapt to situations in which health can be threatened (Maddi, 1999; Maddi et al., 2002). Hardiness can be considered a personal asset; however, unlike self-efficacy, it has been described as an individual difference trait and less susceptible to fluctuations as result of environmental factors (Kobasa, 1979; Maddi, 1999). There are three general characteristics that people with high levels of hardiness have been posited to possess: (a) the belief that they can control and/or influence the events they experience in life; (b) a commitment to their personal and interpersonal values and goals; and (c) cognitive flexibility, in that they view change as an exciting challenge that will enhance development (Beasley, Thompson & Davidson, 2003; Kobasa, 1979; Kobasa, Maddi & Kahn, 1982; Maddi et al., 2002). Hardiness is thought to be strongly tied to adaptive coping behaviors, as hardy people have a greater number of coping resources available to them and are more likely to use adaptive responses to stress that help to suppress or alleviate the effects of stress on health (Beasley et al., 2003; Kobasa, 1979; Kobasa et al., 1982). Thus, researchers have blended hardiness with personal coping resources and behaviors into their conceptualizations of resilience (Connor & Davidson, 2003; Nowack, 1990).

Studies conducted to explore how hardiness operates have supported both main effect and interaction models. For example, in their seminal 5-year prospective study of middle- and upper-level male executives at a large public utility company, Kobasa et al. (1982) found that managers who exhibited traits of hardiness experienced lower rates of illness than those without hardiness traits, regardless of stress level. The researchers also found that as stress level increases, hardiness buffered the effects of stress such that hardy managers under high stress were not as susceptible to becoming sick compared to non-hardy managers under high levels of stress. A more recently conducted study exploring hardiness among young adults also found support for the main effect and interaction models in the role of hardiness in reducing the impact of stressful life events on psychological distress (Beasley et al., 2003). Kwon (2013) has suggested that hardiness and adaptive coping behaviors may be particularly important resilience factors for lesbian, gay, and bisexual (LGB) individuals because these factors may reduce reactivity to prejudice and prepare LGB persons to cope with minority stress. Taken together, hardiness/adaptive coping may be an important asset that, like self-efficacy, plays compensatory and protective roles in reducing poor psychosocial outcomes among YBGBM.

Social Support

Social support is a third factor often pointed to in definitions of resilience. However, unlike self-efficacy and hardiness/adaptive coping, social support is considered a resource, as it is dependent on factors in the social environment (Fergus & Zimmerman, 2005). As noted by Wills and Fegan (2001), "social support is broadly defined as resources and interactions provided by others that may be useful for helping a person to cope with a problem" (p. 209). Social support has been conceptualized in terms of quantity and quality of social connections (Wills & Fegan, 2001), measured by asking about perceptions of the availability of support (i.e., perceived support) or actual receipt of support (i.e., enacted support) (Barrera, 1986; Barrera, Sandler & Ramsay, 1981; Sarason, Levine, Basham & Sarason, 1983), and categorized using descriptors such as emotional, informational, and instrumental/practical (Barrera, 1986; Wills & Fegan, 2001). Like other resilience factors, social support has been conceptualized as having compensatory and protective effects in reducing the effect of risk environments and stress on positive functioning (Wills & Fegan, 2001).

Of the types of social support that have been identified in the literature, support from parents appears to be the most foundational in resilience theory, notably in research on child and adolescent development (Fergus & Zimmerman, 2005). The relationship between a child and parent has been described as the most important of all human social connections and an especially important protective factor (Masten & Wright, 2009). Levels of perceived social support from parents may be particularly important for improving psychosocial outcomes among young men of color. One study of Black male adolescents found support for both compensatory and protective models in which parental support directly related to lower psychological symptoms, as well as buffered the effects of stressful life events on psychological symptoms (Zimmerman, Ramirez-Valles, Zapert & Maton, 2000). Another study of resilience and risk factors influencing suicidal ideation and attempts in a large sample of Black and Latino youth observed that family closeness was the singular most important resilience factor related to decreased suicidality (O'Donnell, O'Donnell, Wardlaw & Stueve, 2004).

While studies of youth of color have not shown peer or friend social support to be a significant resilience factor in compensatory or protective models (O'Donnell et al., 2004; Zimmerman et al., 2000), research conducted with LGB individuals suggests that peer support may be a critically important protective factor in managing minority stress related to sexual identity (Choi, Han, Paul & Ayala, 2011; Herrick, Stall, Goldhammer et al., 2013; Kwon, 2013; Riggle, Whitman, Olson, Rostosky & Strong,

2008). Moreover, several studies suggest that support received from various sources may play a critical role in promoting positive health outcomes among YBGBM. Research conducted with the aim of exploring the protective effects of social support in reducing risk for poor mental health outcomes among Black MSM has suggested support from a range of outlets—including family members, friends, and sex partners—may contribute to reduced risk (Yang, Latkin, Tobin, Patterson & Spikes, 2013). Other studies have shown that social support is related to increased HIV testing (Lauby et al., 2012; Mashburn, Peterson, Bakeman, Miller & Clark, 2004), reduced sexual risk-taking behavior (Peterson et al., 1992), and substance use (Buttram, Kurtz & Surratt, 2013) in this population. Most of the studies exploring social support as a resilience factor among MSM have demonstrated its compensatory, but not protective, effects. However, given the potentially significant role of social support from friends/non-kin as a component of resilience among YBGBM across studies and health outcomes, it may be important to explore along with support from parents and caregivers.

Goals of the Current Study

Theory and research provide extensive evidence for multiple dimensions of resilience. However, studies of resilience often employ singular measures of the construct and use analytical techniques that compare resilient versus non-resilient individuals in a basic fashion (Kolar, 2011; Masten, 2001). These studies fail to realistically model the way in which resilience may operate within people, and create false dichotomies of resilient versus non-resilient persons by failing to examine the co-occurrence of multiple resiliencies within diverse populations. Analyses that allow for the creation of different profiles of resilience, such as cluster analysis, may be useful for classifying resilient individuals and informing future directions for research (Masten, 2001). This person-centered approach—used to describe how multiple resilience factors may co-occur within individuals, and examining the relative importance of different factors in relation to different psychological outcomes—extends our current knowledge of resilience and sheds light on how this complex phenomenon operates, notably within highly vulnerable populations such as YBGBM.

Examining resilience as it relates to psychological and psychosocial outcomes among YBGBM is consistent our primary focus on minority stress as a risk factor for YBGBM. Research in the area of minority stress has sought to explore how it enhances vulnerability to mental health problems in gay and bisexual populations (Hatzenbuehler, 2010; Meyer, 2003, 2010). Related to mental health problems, internalized stigma is important to understand in relation to resilience among MSM (Herrick et al., 2013). Likewise, family support and attachment may also be correlated with resilience in high-risk young adults (Beasley, Jenkins & Valenti, 2015; Sapienza & Masten, 2011; Smith, Lizotte, Thornberry & Krohn, 1995).

The goals of this study are (a) to describe profiles of resilience among YBGBM in New York City, using self-efficacy, hardiness/adaptive coping, and social support from parents and peers as key resilient factors, and (b) to explore differences in psychological distress, mental health, and other psychosocial factors (i.e., internalized homophobia, attachment orientation, and familism) among YBGBM in different profiles. Consistent with existing research, we hypothesize that the resilience factors self-efficacy, hardiness/coping, and social support, individually and collectively, have a compensatory effect on poor psychosocial outcomes. We also view YBGBM to be at a disadvantage for experiencing poor psychosocial outcomes based on the syndemic conditions and minority stress that these men face (Mustanski et al., 2007; Penniman Dyer et al., 2012; Wilson et al., 2014).

Methods

Participants and Procedures

Between 2010 and 2011, 304 interested participants were recruited and screened for eligibility for the *Brothers Connect Study* (BCS), a multi-method research project examining psychosocial and situational factors related to enhanced vulnerability to HIV and other poor health outcomes among YBGBM. Research participants were recruited using various approaches. First, fliers were posted at community-based organizations (CBOs), cafés and bars with primarily gay clientele, and university/college campuses. Second, face-to-face recruitment, in which potential participants were given business cards that discretely advertised the study, occurred in nightclubs, community events, and gay pride celebrations. Third, ads were placed in online venues, including hookup websites, social media, and online outposts of print media. Last, study participants were given $10 Starbucks gift cards for referring a maximum of two potential participants who screened for eligibility. Thirty-three percent of interested participants were recruited using fliers, whereas 10%, 21%, and 36% were recruited using face-to-face outreach, online ads, and participant referrals, respectively.

Interested participants called a local phone number to complete a brief telephone screening interview with a trained research assistant. During the brief interview, the following eligibility criteria were confirmed by self-report:

(a) aged 18–30 years; (b) male sex at birth and current gender; (c) Black, African-American, Black Hispanic, Caribbean/West Indian, or mixed-race Black/African-American race/ethnicity; (d) sexual activity (i.e., oral sex or anal intercourse) with another man in the past two months; (e) current residence in the New York City metropolitan area; and (f) regular, private access to a computer that is connected to the Internet. Age and residence eligibility were confirmed via inspection of government-issued identification (i.e., driver's license or state ID).

Of the 304 individuals who expressed interest in BCS, 228 (75.0%) were screened eligible and enrolled in the study. Forty-five (14.8%) were eligible but not enroll and 31 (10.2%) were not eligible. Reasons for ineligibility included: age (n = 21); current female gender (n = 3); no Internet access or email address (n = 2); lack of English fluency (n = 2); and, residency outside of New York City (n = 3). Eligible study participants were invited to one of two research offices in Manhattan (both conveniently located near public transportation) to complete a one-time computer-assisted survey. The survey assessed demographic, psychosocial, behavioral, and health information; it was also used to assess eligibility for additional components of BCS, including an 8-week Internet-based sex diary (hence the email address/Internet access eligibility criteria), which are not discussed here. The survey took approximately one hour to complete; participants were compensated $30 for their time and were provided with roundtrip subway/bus fare. All study procedures were approved by the Institutional Review Board at Columbia University.

Measures

Demographic and Health-Related Information

Demographic and health-related information was assessed using a 24-item measure consisting of fixed-choice and fill-in-the-blank questions. Participants completed items assessing age, race/ethnicity, sexual orientation, education level, annual income, relationship status, employment and health insurance status, incarceration history, and HIV status.

Resilience Factors

We used four measures to assess key resilience constructs used to develop profiles. These constructs included self-efficacy, hardiness/adaptive coping, and social support from parents and peers.

Self-Efficacy. The Mastery Scale (Pearlin & Schooler, 1978) was used to assess the construct of self-efficacy. The Mastery Scale is a 7-item scale designed to measure self-efficacy and feelings of personal control. Items include "You can do just about anything you set your mind to" and "There is really no way you can solve the problems you have" (reverse scored). Participants are asked to rate how true each statement is for them personally using a 3-point Likert-type scale where 1 = "not true," 2 = "somewhat true," 3 = "very true." "Don't know," which was coded as missing, was also included as a response option. Negative statements were reverse-coded so that higher scores represent greater self-efficacy. The Mastery Scale has been validated with an ethnically and sexually diverse sample of individuals in New York City (Meyer, Frost, Narvaez & Dietrich, 2006), as well as with adolescents in the Midwest (Whitbeck et al., 1991). In the current sample, the Cronbach's α for the scale was .70, indicating adequate internal consistency reliability.

Hardiness and Coping. The Connor-Davidson Resilience Scale (CD-RISC; Connor & Davidson, 2003) was used to assess the construct of hardiness/coping. The CD-RISC is a 25-item scale that was developed to measure personal attributes/behaviors related to resilience. The content of the scale was drawn from several domains including hardiness and adaptability/coping (Connor & Davidson, 2003). Participants are presented with statements such as "You are able to adapt to change," "When under pressure, you can focus and think clearly," and "You are not easily discouraged by failure" and were asked to rate how much they agree with these statements. Items are rated using a 5-point Likert-type scale, with options ranging from 0 ("not true at all") to 4 ("true nearly all of the time"). Higher scores indicate more resilient characteristics. The CD-RISC has been validated with a random-digit dial probability sample, community samples of psychiatric outpatients, and African-American undergraduate students (Brown, 2008; Connor & Davidson, 2003). In the current sample, Cronbach's α for the CD-RISC was .90, indicating excellent internal consistency reliability.

Social Support from Parents and Peers. The Perceived Social Support from Family Scale (PPS-Fa; Procidano & Heller, 1983) was used to assess social support from mothers and fathers. The PSS-Fa includes 10 items that measure perceptions of levels of social support individuals receive from their mothers and fathers. Items include "I rely on my Mother for moral support" and "I have a deep sharing relationship with my Father." Participants are asked to rate how true those statements are for them personally. Reponses are provided using a 5-point Likert-type scale; response options ranged from 1 ("not true") to 5 ("very true"). Items can be grouped to represent two 5-item subscales: support from mothers and support from fathers. Higher scores on the scale indicate higher levels of

perceived support from parents. The PSS-Fa has been validated with young adult populations and employed in studies of young Black men (Procidano & Heller, 2005; Zimmerman et al., 2000). In the current sample, the PPS-Fa scale and subscales demonstrated excellent internal consistency reliability, as the mother support subscale had a Cronbach's α of .94, the father support had an α of .96, and the overall scale had an α of .92.

The Perceived Social Support from Friends Scale (PPS-Fr; Procidano & Heller, 1983) was used to assess social support from peers. The PSS-Fr includes five items that measure the level of social support participants perceive from friends. Participants are asked to rate how much different statements about their friends apply to them personally. Items include "I rely on my friends for moral support" and "My Friends enjoy hearing about what I think." Participants are asked to respond to items using a 5-point Likert-type scale; response options ranged from 1 ("not true") to 5 ("very true"). Higher scores on this scale indicated higher levels of perceived support from friends. Like the PSS-Fa, the PSS-Fr has been validated with young adult populations and employed in studies of young Black men (Procidano & Heller, 1983; Zimmerman et al., 2000). In this sample, the PPS-Fr has a Cronbach's α of .92, indicating strong internal consistency reliability.

Psychosocial Factors

Psychosocial constructs that were assessed in the survey included psychological distress, mental health, attachment, internalized homophobia, and familism. Several measures were used to capture these constructs.

Psychological Distress. The Kessler-10 (K-10; Kessler et al., 2002) was used to measure non-specific psychological distress. The scale evaluates the cognitive, affective, and behavioral symptoms of psychological distress. Participants are asked to rate how often they have felt a certain way during the last 7 days using a five-point scale. Response options range from "None of the time" to "All of the time." Example items include "Feel depressed" and "Feel that everything was an effort." The K-10 has been widely used in studies of youth and adults and has been validated in studies using diverse samples (Furukawa, Kessler, Slade & Andrews, 2003; Kessler et al., 2002). Cronbach's α for K-10 using the current sample was .90, indicating excellent internal consistency reliability.

Mental Health. Mental health was assessed using the Brief Symptoms Inventory (BSI; Derogatis, 1993). The BSI consists of 53 items and nine subscales measuring several domains of mental health and functioning. The scale is widely used and described as a brief form of the Symptom Checklist 90 (SCL-90); it was designed for use with psychiatric as well as community non-patient samples (Derogatis, 1993). Each item describes a symptom of a psychopathological disorder. Respondents rate how frequently they have experienced symptoms on a five-point scale ranging from "not at all" (0) to "extremely" (4). The BSI provides a Global Severity Index score, which gives an overall evaluation of a respondent's psychopathological status, as well as scores for different subscales. The following subscales were used in this study: somatization (seven items; e.g., "faintness or dizziness;" α = .79); obsessive-compulsive (six items; e.g., "having to check and double-check what you do;" α = .81); interpersonal sensitivity (four items; e.g., "feeling inferior to others;" = .68); depression (six items; e.g., "feeling hopeless about the future;" α = .82); anxiety (six items; e.g., "nervousness or shakiness inside;" α = .78); hostility (five items; e.g., "having urges to break or smash things;" α = .79); phobic anxiety (five items; e.g., "feeling nervous when you are left alone;" α = .74); and psychoticism (five items; e.g., "never feeling close to another person;" α = .65). In the current sample, Cronbach's α for the GSI was .97, indicating excellent reliability.

Attachment. A modified version of the Experience in Close Relationships Scale-Revised (ECR-R; Fraley, Waller & Brennan, 2000) was used to measure the construct of attachment. The ECR-R is a 36-item self-report measure of adult attachment, consisting of two scales assessing attachment anxiety and attachment avoidance. During administration, respondents are instructed to evaluate statements pertaining to their thoughts and feelings when in a romantic relationship. These thoughts and feelings about romantic partners are theorized to result from early childhood experiences with caregivers. Example items include, "I'm afraid that I will lose my partner's love" and "I often worry that my partner will not want to stay with me." Statements are rated on a 7-point Likert scale ranging from "Not At All Like Me" (0) and Very Much Like Me (7). In this study, a modified version of the ECR-R that included 12 items from the original scale was used. In this modified version of the scale, five items were used to assess attachment avoidance and seven items were used to assess attachment anxiety scale. Cronbach's α for the attachment avoidance and anxiety scales was .82 and .83, respectively, indicating strong internal consistency reliability for both scales.

Internalized Homophobia. Internalized homophobia was assessed using a measure designed by Meyer et al. (2006). Items assess the extent to which lesbian, gay, and bisexual (LBG) men and women do not accept their sexual orientation, are uneasy about their same-sex desires, and seek to avoid homosexual feelings. The scale includes nine items; example items include "I wish I weren't gay/bisexual" and "I feel that being gay/bisexual is a personal shortcoming for me." Respondents rate the

frequency in which they experience different thoughts and feelings using a four-point scale ranging "Often" to Never." The internalized homophobia scale has been validated with an ethnically and sexually diverse sample of individuals in New York City (Meyer et al., 2006). Using the current sample, internal consistency reliability for the measure was strong, with a Cronbach's α of .84.

Familism. Familism was measured using the Attitudinal Familism Scale (Steidel & Contreras, 2003). The Attitudinal Familism Scale (AFS) conceptualizes *familism* as comprising four key domains: familial support, familial interconnectedness, familial honor, and subjugation of self for family. The scale includes 18 items that are rated using a five-point Likert-type scale ranging "Strongly disagree" to "Strongly agree." Example items include "A person should feel ashamed if something he or she does dishonors the family name" and "Aging parents should live with their relatives." Using the AFS, Schwartz (2007) demonstrated the applicability of the construct of *familism* to non-Hispanic Black and White young adults and used confirmatory factor analysis to demonstrate that the construct operates similarly within diverse ethnic groups. In the current sample, Cronbach's α for the AFS was .86, indicating strong internal consistency reliability.

Analysis

As noted, we employ the compensatory model of resilience in understanding the relationship of resilience factors to psychosocial factors among YBGBM; our goal here was not to compare or test different hypothesized models (e.g., compensatory vs. protective vs. challenge) in psychological research. To achieve the aims of describing profiles of resilience and exploring the relationship of profiles to psychosocial outcomes, several steps were undertaken. First, frequencies and measures of central tendency were obtained for all demographic, health-related, resilience, and psychosocial variables. Pearson's correlations were obtained for resilience variables (i.e., self-efficacy, hardiness/adaptive coping, and social support from father, mother, and peers) to explore their degree of interdependence.

Second, resilience profiles were obtained using a two-step cluster analysis; the five resilience variables were included as clustering factors. The two-step cluster analysis is a statistical approach used to segment observations into homogenous subsets based on a set of grouping or clustering factors. The analysis is an exploratory one and used to identify clusters, or profiles, of similar participants. The first step of the analysis involves pre-clustering observations into several small sub-clusters that can be used to identify initial estimates of distances between centroids, or the difference of the combined average scores on the clustering factors of one cluster/profile from the combined average scores of a second cluster/profile. These estimates can be used in the second step of the analysis, in which initial "clusters" that include only one observation are grouped together by successively combining the two closest (with regard to centroids) clusters at each stage into successively larger groups. This hierarchical agglomerative process occurs until an optimal number of clusters are obtained. The optimal number of clusters is automatically selected based on comparing distances between centroids of adjacent clusters (with the largest distances between clusters preferred) in different cluster solutions and assessing differences in Bayes Information Criterion (BIC) scores of different cluster solutions (with smaller BIC scores preferred).

A two-step cluster solution was chosen for several reasons. We have no a priori knowledge of the number of clusters/profiles to expect when conducting the analysis, ruling out a k-means clustering approach, which would require providing initial estimates of cluster numbers. Also, our resilience variables were measured on different scales, which a two-step clustering approach handles better than single algorithm approaches. Prior to conducting the cluster analysis, the data were checked for sufficient sample size and intercollinearity among clustering variables. While there are no firm guidelines on sample size needed for clustering data, we used $N \geq 5(2^m)$, where m is the number of clustering variables, as a guideline (Formann, 1984). We also ensured there were low levels of collinearity ($r \leq .70$) among clustering variables. All resilience variables were standardized prior to including them in the two-step cluster analysis to allow for ease in interpreting the cluster solution.

Lastly, to compare resilience profiles obtained in our two-step cluster analysis on psychosocial and demographic, we employed Analysis of Variance (ANOVA), *t*-tests, and cross-tabs/chi-squares. Effect sizes were calculated using Cohen's *d* (Cohen, 1992). We replicated the two-step cluster analysis with a randomly selected sample of 50% of participants to establish the stability of the cluster solution obtained in the analysis of the full sample. Validity of the clusters was assessed by examining if clusters differed on psychosocial factors in theorized or expected directions. Also, we should note that we chose to limit the number of cluster solutions identified to less than or equal to eight cluster/profiles, as the face validity of a cluster solution with nine or more profiles may be questionable. All analyses were conducted using SPSS 22.0.

Results

The mean age of YBGBM in the sample was 24.8 years (SD = 4.2). As shown in Table 1, a majority of

Table 1 Sample demographic characteristics, $N = 228$

Measure	*n*	*M*, %	(*SD*)
Age	226	24.8	(4.2)
Racial/ethnic group			
African-American/Black	137	61.7	
Black Hispanic/Latino	43	19.4	
Afro-Caribbean/West Indian	14	6.3	
Mixed race	28	12.6	
Sexual identity			
Gay/homosexual	166	72.8	
Bisexual	57	25.0	
Other	5	2.2	
Education			
High school or Less	85	37.2	
Some College	91	39.9	
College/Graduate Degree	52	22.8	
Annual Income			
$0-$10,000	121	53.1	
$11-$30,000	75	32.9	
$31,000+	32	14.0	
Employment Status			
Working	79	36.9	
Student	51	23.8	
Unemployed/Disability	84	39.3	
Health Insurance			
Private insurance	46	23.6	
Medicaid	108	55.4	
Don't have insurance	41	21.0	
Ever been incarcerated			
Yes	55	24.1	
No	173	75.9	
HIV status			
HIV-negative	169	74.1	
HIV-positive	54	23.7	
Unknown HIV status	5	2.2	

participants were African-American or Black (61.7%) and identified as gay or homosexual (72.8%). Almost one-quarter (23.7%) of the YBGBM in the sample were HIV-positive, whereas the remaining were HIV-negative (74.1%) or of unknown status (2.2%). Additional details are presented in Table 1.

Overall, participants exhibited relatively high levels of self-efficacy and hardiness/adaptive coping. The mean for self-efficacy was 17.59 ($SD = 3.01$, on a scale from 0 to 21), whereas the mean for hardiness/adaptive coping was 99.40 ($SD = 13.03$, on a scale from 25 to 125). Higher levels of variability were observed in the mean scores for the social support variables. The mean for father support was 10.44 ($SD = 6.80$), whereas the mean for mother support was 15.92 ($SD = 6.71$), and the mean for peer support was 19.56 ($SD = 5.01$); the range of possible scores for each of the social support measures was 5–25. Pearson correlations among the resilience variables are shown in Table 2. Correlations ranged from .08 to .53; the average correlation between variables was .23.

As shown in Fig. 1, the two-step cluster analysis resulted in four distinct profiles of resilience among the

Table 2 Correlations among resilience variables

Variable	1	2	3	4	5
1. Self-efficacy	1.00				
2. Hardiness/adaptive coping	0.53	1.00			
3. Father Social Support	0.08	0.15	1.00		
4. Mother Social Support	0.20	0.29	0.37	1.00	
5. Peer Social Support	0.13	0.24	0.11	0.18	1.00

YBGBM included in the sample. Profile 1 was labeled as *Low self-efficacy and hardiness/adaptive coping* ($n = 53$, 23.5%). YBGBM in this profile scored more than one deviation below the mean on the self-efficacy and hardiness/coping variables (−1.29 *SD* and −1.03 *SD*, respectively). The young men in profile 1 had average levels of father (+.04 *SD*) and slightly below average levels of peer social support (−.11 *SD*) and mother social support (−.33 *SD*). Profile 2 was labeled *Low peer and parental support* ($n = 48$, 21.2%). On average, the young men in this profile had levels of peer social support that were 1.17 standard deviations from the mean in the sample. These young men also had moderately low levels of father (−.58 *SD*) and mother social support (−.49 *SD*). Levels of self-efficacy (+.25 *SD*) and hardiness/coping (−.24 *SD*) among YBGBM in profile 2 were just slightly above and below the mean of the sample, respectively. Profile 3 was labeled *High peer support, low father support* ($n = 78$, 34.5%). On average, YBGBM in this profile scored .66 standard deviations above the mean on peer social support and .58 standard deviations below the mean on father social support. Young men in profile 3 were at the mean for mother support (+.06 *SD*) and had moderately above average levels of self-efficacy (+.40 *SD*) and hardiness/coping (+.45 *SD*). Lastly, profile 4 was labeled *High father & mother support, self-efficacy, & hardiness/adaptive coping* ($n = 47$, 20.8%). On average, YBGBM in this profile had high levels of father support (+1.43 *SD*) and mother support (+.75 *SD*). Profile 4 YBGBM also had moderately high levels of self-efficacy (+.53 *SD*) and hardiness/adaptive coping (+.63 *SD*), and levels of peer support (+.26 SD) that were slightly above the mean for the sample. The profiles did not differ on key demographic variables (i.e., age, race/ethnicity, sexual identity, employment status, or HIV status). Also, results of the stability analysis suggested that the four clusters were qualitatively similar to those obtained using a random sample of half the participants.

Table 3 presents findings from the Analysis of Variance comparing means on psychosocial variables among the four profiles. A clear pattern of results emerged in the analysis. For the K-10 measure of psychological distress and BSI GSI measure of mental health, YBGBM in profile 4 (*High father & mother support, self-efficacy, &*

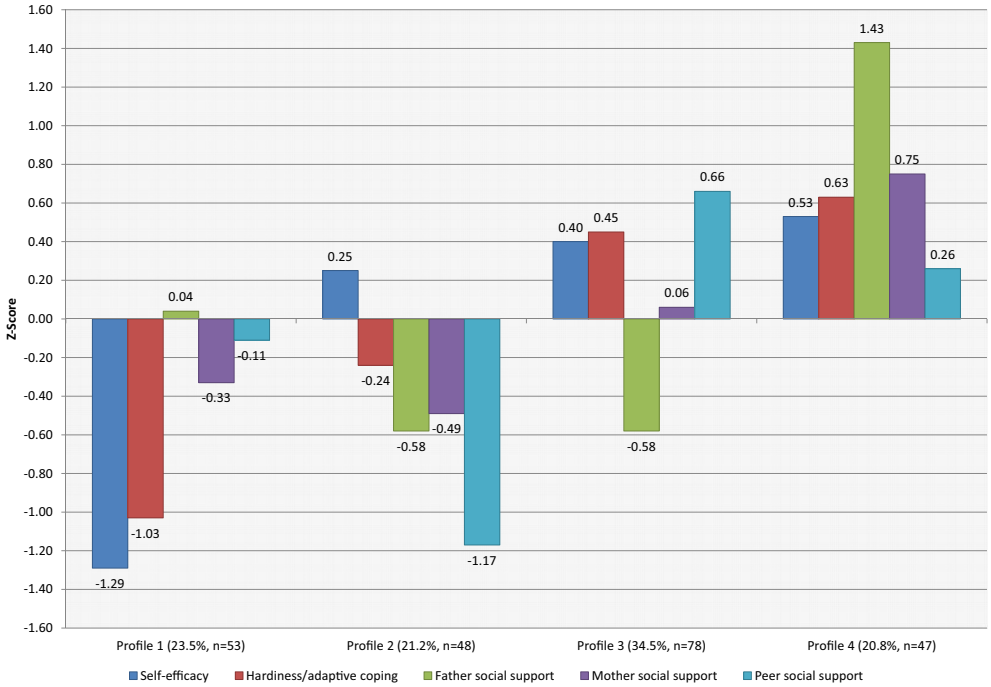

Fig. 1 Profiles of resilience obtained from two-step cluster analysis. ***Profile 1***-Low self-efficacy and hardiness/adaptive coping; ***Profile 2***-Low peer and parental support; ***Profile 3***-High peer support, low father support; ***Profile 4***-High father & mother support, self-efficacy, & hardiness/adaptive coping

Table 3 Comparison of resilience profiles on psychosocial variables

	M (*SD*)						
Psychosocial variable	Profile 1 Low self-efficacy & hardiness/adaptive coping	Profile 2 Low peer & parental support	Profile 3 High peer support, low father support	Profile 4 High father & mother support, self-efficacy, & hardiness/adaptive coping	*F*	*p*-Value	Effect size (Cohen's *d*) Profile 1 vs. 2,3,4
K-10 Psychological Distress	21.68 (8.70)	17.81 (8.24)	16.09 (6.55)	13.85 (4.17)	11.23	<.01	.74
BSI-Global Severity Index	1.12 (0.80)	0.66 (0.59)	0.49 (0.55)	0.37 (0.06)	16.12	<.01	.93
BSI-Somatization	6.09 (5.51)	3.44 (3.98)	2.32 (3.11)	2.04 (3.36)	11.60	<.01	.79
BSI-Obsession-Compulsion	6.39 (5.42)	3.94 (4.12)	2.65 (3.19)	1.89 (2.42)	13.69	<.01	.82
BSI-Interpersonal Sensitivity	4.02 (3.51)	2.38 (2.51)	2.09 (2.96)	1.51 (2.11)	7.42	<.01	.35
BSI-Depression	6.28 (4.60)	3.48 (3.84)	3.06 (3.50)	1.87 (2.58)	13.25	<.01	.85
BSI-Anxiety	6.26 (4.49)	3.96 (3.49)	2.69 (3.63)	1.79 (2.12)	15.68	<.01	.88
BSI-Hostility	5.55 (4.16)	3.77 (3.47)	2.99 (3.43)	2.11 (2.42)	9.42	<.01	.70
BSI-Phobic Anxiety	4.87 (3.75)	2.85 (2.89)	1.76 (2.49)	1.83 (2.43)	14.04	<.01	.88
BSI-Psychoticism	4.47 (3.50)	2.46 (2.58)	1.77 (2.32)	1.21 (1.44)	16.45	<.01	.93
Internalized Homophobia	18.40 (6.23)	16.98 (7.04)	14.49 (5.61)	14.96 (6.00)	5.09	<.01	.50
Anxious Attachment	29.51 (10.55)	26.79 (11.48)	24.59 (11.25)	21.53 (10.98)	4.71	<.01	.47
Avoidant Attachment	18.23 (8.35)	14.48 (8.57)	13.04 (7.20)	10.28 (6.46)	9.58	<.01	.70
Familism	37.49 (12.00)	40.67 (8.38)	40.03 (8.53)	41.47 (7.90)	1.74	.16	−.31

hardiness/adaptive coping) consistently scored lowest, indicating increased mental health relative to the other three profiles. YBGBM in profile 3 (*High peer support, low father support*) consistently scored second lowest, followed by men in profile 2 (*Low peer and parental support*). Young men in profile 1 (*Low self-efficacy and hardiness/adaptive coping*) consistently had the highest K-10 and BSI, indicating reduced mental health functioning. The same pattern held for each subscale of the BSI, except for the phobic anxiety subscale, on which young men in profiles 3 and 4 had roughly equal mean scores, followed by YBGBM in profile 2, then men in profile 1,

who had the highest phobic anxiety scores. The F-tests for the K-10, BSI GSI, and BSI subscales were each significant (ps < .01).

Young Black gay/bisexual men in profiles 3 and 4 had the lowest levels of internalized homophobia, as shown in Table 3, with young men in profile 3 having slightly lower mean scores on internalized homophobia than men in profile 4. YBGBM in profile 2 had the next highest mean level of internalized homophobia and men in profile 1 had the highest mean level. The F-test for internalized homophobia was significant (p < .01). With regard to attachment, a pattern similar to that of the K-10 and BSI was observed: YBGBM in profile 4 consistently scored lowest on anxious and avoidant attachment; those in profile 3 consistently scored second lowest, followed by men in profile 2. Young men in profile 1 had the highest anxious and avoidant attachment scores. The F-tests for both anxious and avoidant attachment were significant (p < .01). Finally, mean scores for *familism* were lowest among YBGBM in profile 1 and highest for young men in profile 4. YBGBM in profiles 2 and 3 had roughly equal mean scores for *familism*. The F-test for *familism*, however, was not statistically significant (p = .16).

Effect sizes (Cohen's d) were calculated to compare profile 1 against profiles 2, 3, and 4 on each of the psychosocial variables with a statistically significant F-test. Effect sizes for differences on the K-10 and BSI GSI were large (.74 and .93, respectively). Effect sizes for the BSI subscales ranged from .35 to .93, with an average effect size of .78 for differences on the eight subscales. Lastly, effect sizes for internalized homophobia, anxious attachment, and avoidant attachment were .50, .47, and .70, respectively.

Discussion

This study is among the first to explore resilience and its relationship with psychosocial outcomes among YBGBM. Our findings suggest that resilience is a multidimensional construct and that there are different patterns of resilience among YBGBM. The four profiles that emerged in the cluster analysis were distinguished by different patterns in levels of resilience factors. For example, participants in profile 4 had markedly higher levels of father support compared to YBGBM in the other profiles, whereas young men in profile 1 had very low levels of self-efficacy and hardiness/adaptive coping. Participants in profile 3 were not extremely high or low on any particular resilience factor; rather, what distinguished young men in this profile were their moderately low levels of father support contrasted with moderately high levels of peer support. Lastly, YBGBM in profile 2 were differentiated from others by low levels of social support across domains. However, they hovered around the mean of the sample on self-efficacy and hardiness/adaptive coping.

The results of the cluster analysis strongly suggest that there is not a singular way that resilience plays out among YBGBM. Some young men may experience resilience primarily in terms of intrapersonal assets like self-efficacy, such as those in profile 2, who were low on all resilience factors except self-efficacy. Other YBGBM may benefit from psychological assets and socio-contextual resources that collectively function to protect them from the risks presented by syndemics and minority stress. This type of multifaceted resilience is exemplified by the young men in profiles 3 and 4, who had relatively high levels of self-efficacy and hardiness/coping, as well as social support. The key distinction between these two profiles is from whom social support is received. For YBGBM in profile 3 support was received from friends; for those in profile 4 it was from parents, most notably fathers.

Our study identified YBGBM who lacked resilient characteristics, and these young men were captured in profile 1. While these young men had levels of social support that were close to the mean of the sample, they were much below the mean on self-efficacy and hardiness/adaptive coping. However, what permits us to designate the young men in this profile as lacking resilient characteristics is not so much the qualitative description of their profile, but the quantitative distinctions between this profile and the other three profiles on mental health and psychosocial factors presented in Table 3. The compensatory or main-effects model of understanding resilience would suggest that young men in profile 1 lacked resilience, as the differences between profile 1 and the other profiles on psychological distress, mental health, internalized homophobia, and attachment were striking, as evidenced by the large effect sizes. The results demonstrated clear differences among the profiles, with YBGBM in profile 4 appearing the most resilient, followed by profile 3, profile 2, and ending with profile 1. However, differences between profiles 2, 3, and 4 in scores on psychosocial variables were minimal in many cases, and differences were often not statistically significant. The most prominent and statistically significant differences were observed in comparing young men in profile 1 to those in all other profiles.

The differences observed among profiles on psychosocial factors not only help to define which profiles represent resilience, but also what resilience factors may be most important in protecting YBGBM from poor mental health outcomes. While the profiles differed with regard to each of the resilience factors measured, mental health outcomes appeared to be most influenced by low levels of self-efficacy and hardiness/adaptive coping skills, as

evidenced by very poor mental health functioning of YBGBM in profile 1 (relative to the other profiles), and the better functioning of young men in profile 2. Men in profile 1 had very low levels of self-efficacy and hardiness/adaptive coping and close-to-average levels of support; those in profile 2 had very low levels of social support but close-to-average levels of self-efficacy and hardiness/adaptive coping. Both profiles 1 and 2 appear to be low on important dimensions of resilience. However, YBGBM in profile 2 had better psychosocial outcomes than YBGBM in profile 1, suggesting that self-efficacy and hardiness, even at average levels, may be more protective in reducing poor mental health outcomes compared to social support. This is not a novel finding, however. Studies exploring the construct of hardiness suggest that it is more important than social support in promoting positive outcomes in the context of adversity (Beasley et al., 2003; Ouellette Kobasa, Maddi, Puccetti & Zola, 1985).

While the young men in profile 2 may benefit from levels of mastery and hardiness that are just enough to be protective from the poor outcomes experienced by men in profile 1, men in profile 2 still experience reduced mental health compared to YBGBM in profiles 3 and 4. YBGBM in these profiles exhibited characteristics that can clearly be labeled as resilient. Young men in profile 4 were high on all the domains of resilience and well above the mean of the sample on father support. It is important to note that the overall mean for father support was quite low for this sample, suggesting that most study participants may have lacked relationships with their fathers. This is consistent with work exploring the roles of Black fathers in the lives of their children (e.g., Edin, Tach & Mincy, 2009; McLoyd, 1990) and highlights the potentially unique quality of profile 1, which included about 21% of participants. Over one-third of participants were categorized in profile 3. YBGBM in this profile may represent a more traditional type of resilience for many young Black men. While these men lacked father support, they had high levels of peer support and above average mastery and hardiness/adaptive coping. In contrast to YBGBM in profiles 2 and 4, young men in profile 2 would not be considered resilient by most standards, given their low levels of social support. However, they appear to have enough of what may be considered an essential ingredient—self-efficacy—in mitigating risks for poor psychosocial outcomes.

Our findings also suggest that resilience is not an exceptional quality. Resilience manifests itself in diverse ways for YBGBM. If one accepts the notions that YBGBM in profiles 3 and 4 would be considered resilient, than over half (55.3%) of the sample we obtained has resilient characteristics. If we look at the sample differently, based off the quantitative comparisons among profiles, it could be said the young men in profile 1 are lacking in resilient characteristics, whereas the rest of the YBGBM in the sample (i.e., 76.5%) possess some form of resilience. Either approach leads to the conclusion that resilience may be a characteristic that the majority of YBGBM possess. This is consistent with what Masten (2001) has termed "ordinary magic," or the idea that resilience is not an exceptional or special trait, but resulting "from everyday magic of ordinary, normative human resources in [people]. . .in their families and relationships, and in their communities" (p. 235). This finding is also aligned with studies of resilience among gay men, which has suggested that resilience has prevented the majority of gay men from experiencing negative health outcomes and/or promoted recovery from negative health behaviors (Gwadz et al., 2006; Herrick, Stall, Goldhammer et al., 2013). Thus, our findings support the notion that many YBGBM may exhibit resilience and build upon this understanding by providing insight on the configurations of resilience factors in YBGBM.

This study has several limitations that need to be considered. First, while we examined three resilience factors that have been deemed important within the research literature, there are several other factors that were not included in our analysis. For example, intelligence has been shown to be an important component of resilience (Masten & Wright, 2009). Likewise, culture and religion have also been explored as resiliencies. These factors may be very important for YBGBM, as studies have shown Black MSM to draw upon positive associations with Black and gay identities in response to stigma (Meyer, Ouellette, Haile & McFarlane, 2011) and engage in religious-focused coping in response to life stressors (Pitt, 2010; Woodyard, Peterson & Stokes, 2000). Second, we took a compensatory or main effects view of resilience in this study, in that we aimed to see how different forms of resilience were related to psychosocial factors. High levels of resilience factors were posited to be related to low levels of psychosocial risks. Our findings provided support for this notion. However, additional research is needed to explore if the different profiles we identified have protective effects on YBGBM by mitigating the effects of syndemic conditions and minority stress on psychosocial outcomes. Third, while our non-probability sample included diverse YBGBM recruited from different sources, the findings from the cluster analysis cannot be generalized to all YBGBM. Resilience profiles may be different from YBGBM from other geographic areas and those from suburban and rural settings. Future research is needed to confirm the findings obtained here and/or further develop the model. Lastly, all of the measures we used to assess resilience factors and psychosocial outcome variables were obtained via self-report and at only one point in time. Objective measures of hardiness/adaptive coping and social support, as well as mental health, would

have enhanced validity. Also, longitudinal studies, which are greatly needed in resilience research, would allow for the exploration of the stability of resilience factors over time and the identification of developmental and social factors (such as trauma, neighborhood changes, etc.) that precede changes in resilience factors among YBGBM.

In spite of these limitations, this study makes important contributions to research. We explored how different resilience factors simultaneously operate within YBGBM. The four resilience factors we examined were not strongly intercorrelated. Self-efficacy and hardiness/adaptive coping were modestly correlated, though this was expected given that control beliefs are essential components of both constructs (Bandura, 2001; Maddi et al., 2002). Nonetheless, the average correlation among resilience factors was small, suggesting that the resilience factors we explored here operate in a relatively independent fashion within YBGBM. This research also suggests that, although resilience varies among YBGBM, self-efficacy may be an essential component of resilience across profiles. Control beliefs and mastery have consistently been attributed to promoting positive outcomes in the face of adversity (Masten & Wright, 2009), and our findings provide more support for the essentiality of this construct for operationalizing resilience. The findings also suggest that social support may not be critically important in promoting positive psychosocial outcomes among YBGBM, compared to factors like self-efficacy and hardiness/adaptive coping.

This study provides direction for future interventions targeted to YBGBM. Individual-level interventions seeking to improve mental health among at-risk YBGBM may want to focus on increasing self-efficacy and improving hardiness and adaptive coping skills, as these appear to be related to increased mental health functioning and have compensatory effects on risks. Also, though social support may not play as important a role in promoting resilience as self-efficacy, it appears to contribute to positive psychosocial outcomes. Therefore, group- and community-level interventions that aim to improve support resources available to YBGBM are warranted. Notably, family focused interventions that enhance connections and build supportive relationships between YBGBM and their fathers may lead to greater resilience.

This work represents an important first step in expanding our knowledge of resilience among YBGBM and understanding the complexities of resilience in this population. YBGBM are at great risk for a variety of poor health outcomes, and structural interventions focused on reducing stigma and promoting equity are needed to change the social settings within which so many YBGBM develop. As society builds the social and political capital to develop and implement these interventions, it is important that researchers and practitioners continue to develop new tools and approaches to describe and enhance resilient processes in YBGBM.

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