Published in final edited form as:

J Community Psychol. 2019 June ; 47(5): 1095–1104. doi:10.1002/jcop.22176.

An Examination of Grit in Black Men Who Have Sex with Men (BMSM) and Associations with Health and Social Outcomes

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Abstract

Aims: This study sought to examine the prevalence and correlates of grit in a sample of BMSM in Baltimore, Maryland.

Methods: A trained research assistant administered the Short-Grit and Center for Epidemiological Studies Depression (CES-D) scales and surveyed participants of a community-based behavioral health intervention for demographic, health, and sexual behaviors.

Results: Of 239 participants, two thirds scored in the high grit category. A greater proportion of men with high grit demonstrated higher educational attainment, were employed in the prior six months, reported very good/excellent health, were HIV positive, scored <16 on the CES-D, and had more friends who were gay. After controlling for other variables, high grit was associated with higher odds of having more friends who are gay and lower odds of alcohol use, unemployment, and a high CES-D score.

Conclusions: These findings demonstrate that grit could be an important mechanism upon which to focus health and behavioral interventions for BMSM.

Keywords

Grit; Men Who Have Sex with Men; Black Men Who Have Sex with Men; Resilience; Depression; HIV Seropositivity; Sexual and Gender Minorities

Introduction

Stigma and discrimination have been consistently associated with adverse health and social outcomes, and black men who have sex with men (BMSM) are amongst the most vulnerable. BMSM experience higher rates of health and social disparities compared to other

groups of men who have sex with men (MSM) in areas including substance use, victimization, incarceration, poor physical health, and reduced access to health and preventive care (Garofalo et al., 2010; Harawa et al., 2008; Hatfield et al., 2009; Mays et al., 2004; Prejean et al., 2011; Tobin et al., 2011; Eaton et al., 2018). In one study of BMSM, 31% of the sample reported experiencing discrimination based on their race, and 39% felt discriminated against due to their sexual orientation (Jones et al., 2008). Such experiences of stigma have been linked to a range of negative outcomes including lowered self-esteem and decreased engagement with health and/or support services (Corrigan et al., 2009; Crocker et al., 1998; Fitzgerald-Husek et al., 2017). These risks only exacerbate the already heightened risk of HIV faced by MSM in the US, who in 2015 accounted for 70% of all adults and adolescents infected with HIV in the country (Centers for Disease Control and Prevention, 2015). Recent CDC reporting demonstrates that BMSM are diagnosed with HIV at the highest rate any racial/ethnic group: if current rates continue, one out of every two BMSM is expected to receive an HIV diagnosis within their lifetime compared to one in four Latino MSM and one in 11 white MSM (Centers for Disease Control and Prevention, 2016; Centers for Disease Control and Prevention, 2018).

Research to identify factors associated with improved health has found that resilience, a multidimensional and often broadly-defined personality trait, is associated with a range of positive outcomes. Resilience is defined as the ability for one to exhibit adaptive coping in the face of adversity or stress (de Lira & de Morais, 2017) and is influenced by individual, family, community and environmental-level factors (Masten & Monn, 2015). Those with resilience are able to demonstrate strength, self-efficacy, and hardiness when confronted with (and even perhaps as a result of) setbacks, challenges, and hardships (McNair et al., 2018). Resilience can serve as a protective factor against HIV risk for MSM, is associated with higher rates of emotional regulation, strong social relationships, and psychological well-being, and can reduce experiences of anxiety, depression, and internalized stigma in lesbians and gay men (de Lira & de Morais, 2017; McNair et al., 2018).

In recent years, the construct of grit has been introduced, incorporating but expanding upon the concept of resilience. The measure of grit was first put forth by Duckworth and colleagues in 2007 (Duckworth et al., 2007). Defined as a higher order personality trait comprised of two distinct characteristics, perseverance of effort and consistency of interest, higher levels of grit have been linked with wide ranging positive outcomes in many areas. Initially, grit was examined as a predictor of academic achievement and professional accomplishment, with higher levels of grit associated with better outcomes for students, greater military retention, and even superior athletic performance of elite soccer players (Larkin et al., 2016; Guerrero et al., 2016; Suzuki et al., 2015; Eskreis-Winkler et al., 2014; Von Culin et al., 2014). However, attention on grit has since shifted towards its associations with mental health outcomes and adaptive behaviors. Higher grit has been negatively associated with perceived academic failure, stress, and risky behavior including alcohol or marijuana use, fighting, or involvement in delinquent activity in teenagers (Guerrero et al., 2016). Grit has also been found to serve as a protective factor against depression and suicidal ideation (Guerrero et al., 2016; Lee, 2017; Kleiman et al., 2013).

Both resilience and grit are constructs that affect the ability to succeed in the face of setbacks and obstacles. What differentiates them is that while resilience accounts for one's adaptation to past challenges, grit is a mechanism for future behavior. Those with grit demonstrate commitment to forward-focused goals and sustained effort towards future aspirations, marked by commitment, passion, self-efficacy, and a sense of purpose (Duckworth et al., 2007; Guerrero et al., 2016). To best understand highly stigmatized groups such as BMSM, this distinction may be important, as it can help highlight the nuanced reasons for which some individuals are able to overcome the adverse psychological and health impacts of chronic stressors related to race and sexual identity while others are not. In times of particularly negative life events experienced by this population such as a homophobic episode or an HIV diagnosis, it is possible that those with grit can see beyond the challenges of the present by focusing upon the future. If so, grit may be an untapped mechanism through which behavioral health interventions can help to improve outcomes in populations of BMSM. This study aims to examine the prevalence and correlates of grit in a population of urban BMSM. Data for this study came from the six-month follow-up visit of a prospective randomized control trial of a sexual health behavioral intervention for BMSM in Baltimore, Maryland.

Methods

Study Recruitment

Participants were recruited through hard-copy advertisements posted in venues such as cafes, libraries, and community-serving agencies which cater to BMSM. Additionally, virtual recruitment materials were posted on websites including craigslist.org, various listservs, and through several social media sites including that of the local health department.

Population/Inclusion Criteria

At baseline, participants were screened for eligibility by a trained research assistant, either over the telephone or in a private office within the team's community-based research clinic. The inclusion criteria were: (a) self-report age of 18 or older; (b) self-reported sex with at least one male partner within the prior six months; (c) self-reported biological male sex at birth; (d) identification as a male; (e) self-reported black or African American race/ethnicity; (f) engagement in one or more episodes of unprotected anal or vaginal sex within the past six months.

Procedures

The research team obtained written informed consent at the baseline visit for each study participant. Retention activities consisted of phone calls, letters, and text messages to the participant and their contacts. The six-month follow-up survey was administered in person by a trained research assistant in a private office. Overall retention at six months was 85%. Participants received \$40 for completion of the survey.

Measures

Outcome: Grit was measured using the validated ten item Short-Grit Scale (Grit-S Scale) [Duckworth & Quinn, 2009]. The scale has two factors: consistency of interests, which

includes statements such as “I often set a goal but later choose to pursue a different one” and “My interests change from year to year,” and perseverance of effort, which includes items such as “I finish whatever I begin,” “I am diligent,” and “Setbacks don’t discourage me.” Responses range from “very much like me” to “not at all like me.” The final grit score is an average of all items (some reverse coded) and ranges from 1 (low grit) to 5 (high grit). Cronbach’s alpha for the present study was 0.80. To improve the interpretability of the results, we created a dichotomous variable cut at 3.0 to indicate that individuals who score above 3 either agreed or strongly agreed with grit statements and those who scored less than three did not agree.

Demographics: Age, highest education, unemployment in the prior six months and current health insurance status were self-reported. To assess current relationship status, men were asked to select one of the following options: married, in a committed relationship, separated, divorced, widowed or single. A dichotomous variable was created in which married and in a committed relationship were coded as one and the remaining categories coded as zero. Sexual attraction was assessed by asking, “Are you sexually attracted to men, women or both?” HIV status was determined at baseline by a combination of results from HIV rapid antibody testing using the Oraquick test kit (for those participants self-reporting negative or an unknown status) and verification of a self-reported HIV positive status using medical records or medications.

Depression was measured with the Center for Epidemiological Studies Depression (CES-D) scale, a 20-item survey which presents participants with questions about experiences of depressive symptoms (such as restless sleep, loneliness, or crying spells) within the past week. Answer choices range from 0 (rarely or none of the time) to 3 (most or almost all of the time). Scores were summed, and a cut-off score of 16 was used to determine presence of depression (Boyd et al., 1982).

Health Behaviors: Drug and alcohol use: Participants self-reported use of heroin, cocaine, or crack in the prior six months. Frequency of alcohol use was assessed by asking, “How often do you drink alcohol?” with the response choices never, monthly or less, 2–4 times a month, 2–3 times a week, or 4 or more times a week.

Two measures of sexual risk behavior were assessed: multiple sex partners and condom use. Multiple sex partners was determined by asking participants to provide the number of sexual partners they’d had in the prior 90 days, regardless of their partners’ gender or the type of sex had. A dichotomous variable was created to differentiate between participants who had one versus two or more sexual partners in the past 90 days. Participants reported their frequency of condom use for anal and vaginal sex for all partners by choosing from the following categories: never, less than half the time, half the time, more than half the time, and always. A construct variable was created to indicate those who reported always using condoms with all partners for all types of sex versus not always using condoms with all partners for all types of sex and those who reported that they did not have any anal or vaginal sex in the past 90 days.

Social-level Variables: To assess number of gay peers, participants were asked the question “How many of your good friends are gay or bisexual men?” and provided with the answer choices none, less than half, about half, most, and all. We also assessed frequency of attending any gay organizational activities such as meetings, fundraisers, political activities, etc., and participants selected from the choices never, once a month or less, several times a month, or weekly. We created a dichotomous variable to indicate never versus ever.

Analysis

Univariate statistics were used to summarize variables. Comparisons between low and high grit were made using ANOVA for continuous variables and chi square statistics. To identify variables independently associated with high grit, all statistically significant covariates (at $p < 0.10$) were entered into a backwards stepwise logistic regression set at removing variables at the $p > 0.10$ significance level.

Results

The sample included 239 participants, two thirds of whom scored in the high grit category. Table I shows results of correlates associated with high grit in the bivariate analysis.

Associations between High Grit and Demographic Variables

High grit was marginally associated with older age with a mean age of 40.7 years for those with high grit compared to 37.8 years among those reporting a low grit score ($p = 0.07$). A greater proportion of men with high grit scores had higher educational attainment ($p = 0.02$), were employed in the prior 6 months ($p < 0.001$), reported very good/excellent health ($p = 0.03$), were HIV positive ($P = 0.02$), scored less than 16 on the CES-D ($p < .001$), and had more friends who were gay and/or bisexual ($p < .001$).

Associations between High Grit and Health Behavior Variables

Having a high grit score was significantly associated with not having two or more sex partners in the prior 90 days ($p = 0.03$) and marginally associated with reporting never using alcohol ($p = 0.08$), not having sex in the prior 90 days ($p = 0.09$), and less frequent condom use ($p = 0.09$).

Multivariate Model

High grit was associated with higher odds of having more friends who are gay and/or bisexual and lower odds of alcohol use ($AOR = 0.50$, $95\% CI = 0.27-0.96$), unemployment ($AOR = 0.35$, $95\% CI = 0.16-0.76$) and a high CES-D score ($AOR = 0.15$, $95\% CI = 0.08-0.30$) after controlling for other variables. These results are shown in Table II.

Discussion

Grit is a measure that is related to resilience but includes the components of sustained interest and effort over an extended period of time. Beyond characteristics related to one's past and present experience, grit accounts for a broader view of what drives and enables motivation to engage in health promoting behavior and succeed in the face of substantial

challenges. We determined the prevalence of grit in a sample of urban BMSM, and our study found that two thirds of the sample were characterized as having high grit.

We also sought to identify correlates of grit. Being employed was strongly associated with grit in the multivariate analysis. One explanation for this could be that the grittier members of this study population use their focus and drive towards achieving longer-term goals to maintain employment. Having a job may also be a means through which individuals continue to move forward and remain motivated and optimistic in the face of interpersonal and social struggles.

In the study population, high grit was associated with scoring below 16 on the CES-D (indicating a lack of symptoms of depression). Experiences of BMSM are often characterized by stigma and discrimination, leading to disproportionately high rates of depression and substance use (Safren et al., 2010). In work by Blalock et al., grit is shown to serve as a protective factor, preventing the effects of negative life events from leading to suicidal ideation. In considering this relationship, the authors propose that grit may actually be a facilitator of resilience. The ability to maintain interest on a specific goal and display perseverance towards reaching that goal in the face of setbacks may be the mechanism through which people are able to build resilience to adverse experiences. Blalock et al. suggest that some negative life events may be so great in scale that only those with the capacity to focus forward on achieving long term goals can get through and overcome them effectively rather than becoming overwhelmed by the events of the moment. If grittier individuals are motivated by their commitment to future goals, they may be more able to reframe hardships in a positive light or minimize the attention they place on current stressors, thus allowing them to develop the capacity to adapt to these challenges (resilience) [Blalock et al., 2013].

We report that high grit was associated with lower odds of frequent alcohol use, suggesting that those with grit may be less likely drink alcohol as a coping mechanism. In addition, high grit was associated with not having two or more sexual partners in the past 90 days, a possible indication that those with grit are less likely to engage in sexual risk taking behavior. However, high grit was not associated with a decreased use of crack, cocaine, or heroin in the past six months.

A greater proportion of BMSM with high grit scores reported having more gay or bisexual male friends. One explanation for this finding is that those with higher grit may be more likely to seek out support networks comprised of others with whom they share challenges and experiences. This increased social support may be a reason for which individuals with grit also demonstrate lower rates of depression. Alternatively, having close relationships with gay or bisexual male friends may lead to higher levels of grit. In future studies, it would therefore be interesting to examine perceived social support and its relationship with grit in this population.

A marginally significant but interesting finding was the association between grit and HIV status: those with high grit demonstrated higher odds of reporting an HIV positive status. Though this study was cross-sectional and causality cannot be determined, it is highly

unlikely that characteristics of grit put one at risk for contracting HIV and more plausible that the experience of living with HIV supports the development of grit. It is well established that people with HIV face chronic stigma and discrimination (Earnshaw et al., 2013). It can thus be reasoned that for a population of already highly stigmatized individuals, the extra burden of living with this chronic and life-altering disease could be a mechanism through which the characteristics of grit such as resilience, determination, and perseverance are developed. It would be beneficial to further examine this relationship in order to better understand the ways in which people living with HIV may develop traits of grit.

Finally, higher grit was marginally associated with older age. This may demonstrate that grit is something that develops with maturity and time, suggesting that with more life experience comes a more developed ability to think forward and focus on long-term goal-setting.

The study has some limitations. First, data were collected in a cross-sectional survey, thus limiting the researchers' ability to draw causal conclusions. Secondly, participants were recruited in an urban setting where African Americans comprise the largest racial demographic. This limits generalizability to other groups of BMSM who are not of a racial majority within their community. Thirdly, data were collected by trained interviewers within a research facility. It is therefore possible that participants may have demonstrated a social desirability bias, over-reporting the extent to which they are resilient and/or maintain their interests over time. In general, grit reflects the culturally valued attribute of perseverance and determination, so study participants may be more likely to exaggerate their grittiness.

Another limitation to this study is that the construct of grit does not address any elements of class, poverty, or social structural factors. When understanding adverse health and social outcomes, it is challenging to dissect individual-level causes from community-level ones. In this case, those broader characteristics such as availability of drugs, high rates of unemployment, neighborhood violence, and lack of resources may impact physical and mental health more strongly than individual-level factors such as resilience or grit. By focusing on the individual rather than the community or society, researchers may over-attribute negative outcomes such as unemployment on an individual's lack of drive or motivation to succeed rather than the substantial structural barriers that person may be facing.

Conclusions:

Despite these limitations, our study found a high prevalence of grit in this sample and demonstrated that this characteristic was associated with social connectedness, employment, and decreased risk behaviors. Current evidence suggests the effectiveness of cognitive behavioral therapy, emotional regulation, and resiliency-based interventions to reduce the negative impacts of stigma and discrimination in vulnerable populations and improve health and behavioral outcomes (Buttram, 2015; Hergenrather et al., 2013; Parsons et al., 2017; Melendez-Torres & Bonell, 2014). Yet these interventions often build upon the development of present-focused coping skills or those that decrease the impact of past traumas, including social relationship building, altruism, inner strength recognition, and diversity of experience (Buttram, 2015; Melendez-Torres & Bonell, 2014). What is lacking in these techniques is

the importance of looking forward, a capacity demonstrated by the presence of grit. This study suggests that future interventions designed to target BMSM should include an emphasis on developing the elements of grit, specifically focusing on the future, setting concrete goals, and maintaining interests over time.

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Table 1:

Comparisons of demographic, health, behavior, and social characteristics by grit, Snap Study, n=239, Baltimore, Maryland

Variable	Low GRIT N=81 (34)	High GRIT N=158 (66)	p-value
Demographics			
Mean age (SD)	37.8 (10.8)	40.7 (12.1)	0.07
Highest education <12 years 12 years/GED Some college or more	20 (25) 38 (47) 23 (28)	28 (18) 55 (35) 74 (47)	0.02
Relationship status Not in relationship In a relationship (married or committed)	58 (72) 23 (28)	115 (73) 43 (27)	0.88
Sexual attraction Men only Women only Men and women	31 (38) 13 (16) 37 (46)	91 (58) 18 (11) 49 (31)	0.02
Unemployed in past 6 months No Yes	19 (23) 62 (77)	72 (46) 86 (54)	<0.001
General Health Poor/Fair Good Very Good/Excellent	32 (40) 27 (33) 22 (27)	45 (28) 43 (27) 70 (44)	0.03
HIV status Negative Positive	49 (62) 30 (38)	71 (46) 85 (54)	0.02
CES-D score <16 ≥16	27 (33) 54 (67)	121 (77) 37 (23)	<0.001
Health Behavior			
Alcohol use frequency Never ≤2–3 times per week 4 or more times per week	21 (26) 54 (67) 6 (7)	58 (37) 96 (61) 4 (3)	0.08
Use heroin or cocaine in past 6 months No Yes	61 (75) 20 (25)	126 (80) 31 (20)	0.41
Use crack in past 6 months No Yes	67 (83) 14 (17)	135 (86) 22 (14)	0.57
Have two or more sex partners in past 90 days No Yes	36 (44) 45 (56)	94 (60) 63 (40)	0.03
Condom use Always Less than always Did not have any sex in past 90 days	22 (27) 45 (56) 14 (17)	32 (20) 79 (50) 47 (30)	0.09
Social			
Friends who are gay None Less than half-About half Most/all	13 (17) 54 (70) 10 (13)	11 (7) 81 (55) 55 (37)	<0.001
How often attend gay activities Never Ever	58 (73) 22 (28)	89 (57) 67 (43)	0.02

Table II.

Multivariate regression on high grit, Snap Study, n=217, Baltimore, Maryland

Variables	Adjusted Odds Ratios (95% Confidence Intervals)
Age (continuous)	1.03 (1.00–1.05)
HIV status (ref: negative)	1.94 (0.96–3.92)
Friends who are gay (ref: none)	2.63 (1.41–4.91)
Frequency of alcohol use (ref: never)	0.50 (0.27–0.96)
Current employment (ref: not employed)	0.35 (0.16–0.76)
CES-D score (ref: <16)	0.15 (0.08–0.30)