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## **2-Paper Dissertation Proposal Outline (REVISED 4/08/19)**

### **Description of the new GWU DrPH 2-Paper Dissertation Option:**

Under guidance issued on April 1, 2019, the new two-paper option requires students to prepare a minimum of two publishable manuscripts as part of their dissertation defense. The two publishable papers will each stand on their own merit, although typically they are linked by a unifying theme. To qualify for dissertation defense, at least one of these manuscripts must be under review, in press or published by a peer-reviewed journal prior to scheduling the defense. The two manuscripts, along with a dissertation report that includes the dissertation proposal plus a summary chapter describing the scope of the completed research, its limitations, and the implications of the work, comprise the body of work that will be reviewed at the dissertation defense.

### **Overall Question: Examining How the Perceived Acceptance of Homosexuality in One's Religious Body Impacts the Mental Health and Substance Use Patterns of Black Men Who Have Sex with Men (BMSM)**

**Background of the Problem:** Black men who have sex with men (BMSM) comprise the group that is most disproportionately affected by the current HIV epidemic in the United States (CDC, 2017). Developing effective multimodal HIV prevention interventions for BMSM requires understanding the social and cultural context of these men's lives. One component of that context that has received relatively little attention in the quantitative, empirical literature is the role of faith, religion, and spirituality. Research has consistently shown that the church features prominently in the lives of many in the Black community (Hawes & Berkley-Patton, 2014). Among BMSM, some qualitative studies have shown that these men find it difficult to live without religion or spirituality, as having a connection to their faith provides them with a sense of comfort or resiliency that can help them cope with life challenges (Foster, Arnold, Rebchook, & Kegeles, 2011; Quinn et al., 2015). However, it has also been shown that BMSM sometimes have ambivalent relationships with their faith (Smallwood, Spencer, Ingram, Thrasher, & Thompson-Robinson, 2017) as religious leaders are known to pronounce harsh moral judgments against sexual immorality (Nunn et al., 2013). One issue that has not been studied is how the perceived acceptance of homosexuality in church environments affects BMSM throughout their lives, from childhood exposure to how they handle stress as adults.

**Dataset:** HIV Prevention Trials Network (HPTN) 061- A study which sought to better understand the lives of BMSM and how factors in their lives relate to HIV risk. 1,553 MSM and transgender persons, both HIV- infected and uninfected, who were 18 years old or older and self-identified as Black, enrolled in six cities (Atlanta, Boston, New York, Los Angeles, San Francisco, and Washington, DC) between July 2009 and December 2011.

### **Paper 1: Among BMSM who were involved in a religious body as children, determine whether the perceived acceptance of homosexuality in their childhood religious body is associated with current religious involvement and level of spiritual resilience**

**Background:** Nelson et al. (2017) characterized childhood and adult religious affiliation among participants in HPTN 061. It was found that approximately 76% of 061 participants had religious

affiliations as children, but only about 44% were currently affiliated with a religious body. However, that study did not characterize whether the perceived acceptance of homosexuality in their childhood religious body influenced the likelihood that participants would still be religiously affiliated.

Furthermore, although some studies have suggested that harmful religious messaging increases depression and anxiety (Graham, Aronson, Nichols, Stephens, & Rhodes, 2011) and lowers the self-esteem (Fullilove & Fullilove, 1999) of BMSM, other studies note that BMSM continue to turn to religious and spiritual experiences as sources of strength and coping (Foster et al., 2011; Quinn, Dickson-Gomez, & Kelly, 2016). It is therefore unclear how the perceived acceptance of homosexuality in one's childhood religious body may affect the level of resilience that one experiences from religious/spiritual activities in adulthood. However, as it has been shown that trying to change one's sexual orientation in childhood can lead to guilt and anxiety (Beach et al., 1993), one can reasonably expect that childhood exposure to a religious body that suggests that one can change their sexual orientation or one that generally does not approve of homosexuality would lead to diminished levels of spiritual resilience.

**Hypothesis 1A:** Among BMSM with childhood religious involvement, greater perceived acceptance of homosexuality in their childhood religious body will be associated with greater odds of current religious involvement.

**Hypothesis 1B:** Among BMSM with childhood religious involvement, the level of perceived acceptance of homosexuality in their childhood religious body will be correlated with their current level of spiritual resilience.

**Variables of Interest:**

- **Independent Variable**
  - Perceived acceptance of homosexuality in childhood religious body (ACASI Part E, question 30) among those who answer "yes" to Childhood religious affiliation (ACASI Part E, question 26)
- **Dependent Variables**
  - Current religious affiliation (ACASI Part E, question 19)
  - Spiritual resilience (ACASI Part E, questions 1-7)

**Proposed Analysis:**

Logistic regression with current religious affiliation as outcome and childhood religious exposure as predictor to determine if acceptance is associated with current religious affiliation, and linear regression to determine if acceptance is associated with higher levels of spiritual resilience. Demographic covariates will be included as predictors, as appropriate.

**Paper 2: Determine how experiencing stressful life events may be related to depression and substance use in this population, and determine whether the frequency of religious/spiritual activities and the perceived acceptance of homosexuality in one's current religious body modifies these relationships**

**Background:** Depression is one of the most common of all mental disorders and health complaints (Smith, McCullough, & Poll, 2003), and stressful life events are a well-established risk factor (Monroe & Simons, 1991; Nolen-Hoeksema & Morrow, 1991). Depression has also been shown to be highly associated with substance use (Swendsen & Merikangas, 2000), and national surveys have shown high rates of comorbidity between depression and substance use and substance dependence (Grant, 1995).

As members of two minority groups in America, BMSM have multiple challenges to their physical and mental health (Dyer et al., 2012). Due to this dual reality, they are likely to experience multiple stressful life events (Voisin, Hotton, Schneider, & UConnect Study Team, 2017). While religious participation and spirituality have been generally found to help alleviate stress (Koenig, 2009) and lower substance use (Kendler, Gardner, & Prescott, 1997), it is unclear how religion and spirituality may be related to the stress-depression and stress-substance use pathways in the more nuanced case of BMSM, especially in cases where the church is itself a stressor.

**Hypothesis 1:** Overall, there will be a positive relationship between stress and depression. However, this association will be moderated by perceived acceptance of homosexuality in one's religious body together with the frequency of participation in religious/spiritual activities. For those with low levels of participation in religious/spiritual activities, there will be little or no change in the association between stress and depression. For men with higher levels of participation in churches that they perceive to be accepting of homosexuality, the relationship between stress and depression will be buffered. However, among men with higher levels of participating in churches that they perceive to be less accepting of homosexuality, the relationship between stress and depression will be exacerbated.

**Hypothesis 2:** Overall, there will be a positive relationship between stress and substance use. However, this association will be moderated by perceived acceptance of homosexuality in one's religious body together with the frequency of participation in religious/spiritual activities. For those with low levels of participation in religious/spiritual activities, there will be little or no change in the association between stress and substance use. For men with higher levels of participation in churches that they perceive to be accepting of homosexuality, the relationship between stress and substance use will be buffered. However, among men with higher levels of participating in churches that they perceive to be less accepting of homosexuality, the relationship between stress and substance use will be exacerbated.

**Variables of Interest:**

- **Independent variable**
  - Stressful life events (ACASI Part E, question 137 a-l)
- **Dependent variables**
  - Depression (ACASI Part E, question 113 a-t)
  - Substance Use (ACASI Part D)
- **Moderators**
  - Frequency of religious/spiritual activities (ACASI Part E, questions 9-17)

- Perceived acceptance of homosexuality in current religious body (ACASI Part E, question 24)

### **Proposed Analysis:**

Linear regressions predicting depression and substance use from stressful life events, the frequency religious/spiritual activities, perceived acceptance of homosexuality in one's current religious body, and the 3-way interaction between those variables. Demographic covariates will be included as predictors, as appropriate.

### **References**

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