Religion and HIV Status in Sub-Saharan Africa: Examining Influence and Pathways

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What we know about the connection between religion and HIV risk is, for the most part, limited to a handful of recent studies suggesting that members of evangelical or Pentecostal churches may have distinctive risk behavior. Evidence from South Africa (Garner 2000), Zimbabwe (Gregson et al. 1999), and Brazil (Hill, Cleland, and Ali 2004) shows that members of Pentecostal and AIC churches exhibit reduced risk of HIV infection, due in part to their reduced likelihood of having extramarital partners when compared with members of other religious groups. Another recent study shows that independent of denomination, attendance at religious services is associated with reduced odds of both risk behavior and perceived risk, an effect that is particularly strong for members of Pentecostal churches (Trinitapoli and Regnerus 2004). Other research, however, suggests that due to restrictions on sexual behavior and the consumption of alcohol and the practice of circumcision, Muslims in Africa may experience reduced levels of risk for contracting HIV (Gray 2004; Gray et al. 2000). By establishing patterns of denominational differences in sexual behavior, and subsequently in HIV risk, the literature described above has made an important contribution to better understanding the relationship between religion and the AIDS epidemic at the individual level.

To date, however, these existing studies on the relationship between religion and HIV risk have been limited in a number of ways. First of all, the measures of religion and religiosity employed in these studies have been primitive, with most analyses seeking to establish differences in levels of risk for members of various religious groups. With a few notable exceptions, scholars have not yet moved beyond conceiving religiosity as anything more than membership in a particular group or religious tradition. As more and more studies begin to consider the role of religion in shaping demographic behavior, the need to treat religion as the multi-dimensional construct it really is becomes more and more evident.

A second major drawback in this literature to date is its reliance on self-reports of sensitive behavior such as condom use, extramarital partners, and presence of a sexually transmitted infection (STI). We know that self-reports are of questionable reliability and that self-reports of sensitive behaviors, sexual behavior in particular, are particularly susceptible to systematic reporting errors such as social desirability bias. This knowledge makes it especially important for us to develop and use more objective measures when examining HIV and HIV-related behaviors.

Using new data from the Malawi Diffusion and Ideational Change Project (MDCIP), a study of married women and their spouses in three districts of rural Malawi, the proposed study will examine the relationship between religion and HIV status. This study moves beyond the reliance on self-reported risk behaviors that characterizes the existing body of literature and uses survey data combined with biomarkers to examine whether or not HIV status is associated with religious affiliation or with religious involvement. Furthermore, the proposed study moves beyond the reliance on the simple

measures of religious affiliation that characterize the literature to date and examines a number of measures of religious involvement, attitudes and beliefs, as well as affiliation.

Preliminary analyses of survey data from the Malawi Diffusion and Ideational Change Project (2004) reveal differences in risk-behavior, perceived risk, and HIV status according to several measures of religiosity for both women and men. Regular attendance at religious services, for example, is associated with reduced odds of reporting extramarital partners, lower levels of perceived risk of infection, and reduced likelihood of testing positive for HIV for married men in our sample.

Using a variety of religion measures to predict AIDS-related attitudes, behaviors, and HIV status offers a number of improvements over studies on the topic published to date. First of all, in examining multiple indicators of religiosity, both attitudinal and behavioral, allows us to hypothesize about and test the possible pathways by which religion may influence HIV risk. Does organized religion primarily influence risk behavior through social control exerted on members? Do deep-seeded religious beliefs about sexuality and family life drive the differences in risk behavior? Do certain religious practices like male circumcision or abstaining from alcohol affect risk behavior? HIV status? Finally, do the religious differences in risk behavior observed by other scholars represent actual differences (corroborated by different levels of HIV infection) or do they merely alert us to significant differences in accurately reporting of sensitive sexual behaviors?

The analytic strategy for the proposed study involves using latent variable models to estimate the effect of religion on HIV risk behaviors, and subsequently on HIV status. Models will be run separately for men and for women and will include controls for the following factors: age, level of education, ethnicity, region, household structure, previous marriage, age at first sex, and social desirability bias.[1] The measures of religion and religiosity that will be examined for use in these analysis include: denomination, attendance at religious services, frequency of prayer (particularly important for tapping devotion among Muslims in this region), identification as "born again" for Christian men and women or having "made tauba" (the equivalent for Muslims), density of congregational social networks, and beliefs about healing, sin, ethical principals and spiritual power. The primary outcome of interest for this study will be HIV status, measured with biomarker data from the 2004 MDICP survey. A number of mediating outcome variables will also be examined; these include: having an extramarital partner, suspecting spouse of having an extramarital partner, perceived likelihood of infection, and presence of another STI (4 other STI biomarkers are available in this dataset.)

The proposed study offers an opportunity to examine the connection between religion and HIV transmission in a sample of married men and women in a religiously diverse sub-Saharan African country that is experiencing a serious HIV epidemic, with approximately 14% of the population infected. Using better measures of religiosity, more sophisticated modeling techniques, and biomarkers to more objectively assess actual differences in HIV transmission, this study offers important improvements over the current state of the literature and will, thus, be of considerable scholarly value.

[1] The MDICP contains an index to measure social desirability bias.

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