Published in final edited form as:

Int J Cult Ment Health. 2009 December 1; 2(2): 118–128.

Knowledge, attitudes, cultural, social and spiritual beliefs on healthseeking behaviors of Gambian adults with HIV/AIDS

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Abstract

HIV/AIDS continues to grow exponentially in sub-Saharan Africa. Early HIV/AIDS care is essential for early interventions to increase quality of life and reduce mortality. The objectives of the study were: (1) to determine the relationship among attitudes, spiritual beliefs, cultural beliefs, social beliefs and knowledge on health-seeking behaviors (HSB) of Gambian adults living with HIV/AIDS; and (2) to provide preliminary data on psychometric characteristics of the newly developed HIV/AIDS Knowledge, Attitudes and Beliefs Patient Questionnaire. The descriptive design included 93 adults aged 21 to 65 years. Correlation and hierarchical regression analyses were used. Bivariate analyses demonstrated significant relationships between all five variables and HSB at $p \leq .03$. Additionally, 11% of the variance in HSB was explained by the combined contribution of the five variables. Attitudes significantly contributed to the variance, $F(1, 90) = 4.865$; $p = .03$; spiritual beliefs, though not statistically significant, had clinical significance. The unique contributions of this study are the separation of the variable attitudes from beliefs and knowledge, which independently explained HSB. Spiritual beliefs and attitudes are critical in developing appropriate HIV/AIDS interventions. Furthermore, the HIV/AIDS Knowledge, Attitudes, and Beliefs Patient Questionnaire provides a valid means for measuring attitudes, beliefs and knowledge of HIV/AIDS for use in future research.

Keywords

attitudes; cultural beliefs; The Gambia; HIV/AIDS; health-seeking behaviors; knowledge; social beliefs; spiritual beliefs

Introduction

The Gambia is located in the western region of sub-Saharan Africa. It is the smallest country on the African continent, with a population of approximately 1.5 million. The River Gambia runs through the country providing lovely beaches and attractive locations for tourists, mostly from Europe and Scandinavia. This attraction has negative consequences for importing HIV from other countries into The Gambia. The HIV prevalence rate ranges from 1–2.9%. HIV/AIDS, along with associated illnesses tuberculosis and malaria, has a significant impact on life expectancy. The life expectancy for men is 53 years and 57 years for women, impacting the short- and long-term productivity and economic well-being of families and communities in this small West African country.

Of the over 22.5 million adults and children living with HIV/AIDS in sub-Saharan Africa (UNAIDS, 2007), almost 8000 reside in The Gambia (Gambia Government, 2003). However, the World Health Organization (2006) reported a higher number of Gambian citizens (10,000–20,000) living with HIV/AIDS. The official HIV/AIDS prevalence ratio of males to females is 1:1; 50.08% and 49.92%, respectively. However, surveys have indicated a gender disparity of over 1:2 male:female ratio in HIV/AIDS prevalence, a rate consistent with global trends. For example, in one Gambian study (Gambia Government, 2003), women were almost twice more likely to be infected with HIV than were men, with 63% women compared to 37% men ($n = 108$). The age group with the highest infection rate is between the ages of 25 and 49 (82.4%). The study also suggested that access to healthcare was limited and the motivation to seek care was low in people living with HIV/AIDS because of stigmatization and misconceptions about the disease (Gambia Government, 2003). The vast majority (95%) of Gambians are Muslims and are more likely to engage in cultural traditions such as polygamous marriages, influencing their attitudes, beliefs, knowledge and risks for HIV infection and AIDS. Therefore, it is essential to examine the factors that motivate people to seek healthcare within The Gambia. The purposes of this study were: to determine the relationship among attitudes, spiritual beliefs, cultural beliefs, social beliefs and knowledge about HIV/AIDS on health-seeking behaviors (HSB) of adults living with HIV/AIDS in The Gambia; and to provide preliminary data on the HIV/AIDS Knowledge, Attitudes, and Beliefs Patient Questionnaire (HAKABPQ) developed for this dissertation study.

HIV/AIDS continues to increase exponentially in sub-Saharan Africa. The Gambia continues to see a steady increase in HIV/AIDS rates as more attention is placed on the pandemic and people become more knowledgeable about the disease. Variables such as beliefs and attitudes have been shown to influence how people perceive their health and engage in HIV prevention. Liddell, Barrett and Bydowell (2005) addressed the need to investigate people's indigenous beliefs about illnesses and their decisions for HIV-risk reduction behaviors. Indigenous beliefs are people's understandings, behaviors and practices specific to a particular socio-cultural context grounded in traditions that have been passed through generations. Early healthcare seeking behaviors and early initiation of treatment is associated with increasing quality of life and reducing mortality rates among people with HIV/AIDS. Some studies conducted in Africa identified misconceptions, stigma and long-standing beliefs or myths about HIV/AIDS (Peltzer, 2003; Van Dyk, 2001) as barriers to HSB. The misconceptions and fears about the disease are supported by long-standing beliefs, including spiritual beliefs, which must first be determined in order to implement culturally sensitive HIV/AIDS prevention interventions (Brown, Macintyre, & Trujillo, 2003) essential for curbing HIV transmission.

Empirical data suggest that attitudes and beliefs determine HSB (Fazekas, Senn, & Ledgerwood, 2001; Jemmott, Jemmott, & Villaruel, 2002). Other determinants of behaviors, such as knowledge (McQuinston, Larston, Parrado, & Flaskerud, 2002), were identified. There was an increased number of Gambian patients reporting for voluntary testing and counseling from 3% in 2000 to 18% in 2001 after a sensitization program was designed and implemented to increase awareness and knowledge of HIV/AIDS (Gambia Government, 2001). The increase may have been a result of information provided as part of the sensitization program. A qualitative study conducted by McQuinston and colleagues (2002) among Latinos demonstrated that participants' knowledge was significantly improved after a training program. However, other researchers found that knowledge alone fails to result in change in behavior (Carey & Schroder, 2002; Savaser, 2003). This suggests that there are other determinants of HSB, such as attitudes and beliefs. To date, limited research exists in The Gambia related to determinants of HSB among HIV/AIDS patients. A government-funded study reported that data was still not available to explain the reasons people sought HIV testing, therefore suggesting that HSB has not been investigated. There is clearly a gap in the determinants of HSB (Gambia

Government, 2003, p. 15) and a need to empirically determine barriers so that effective interventions can be implemented by clinicians.

To address the research gap, the Theory of Planned Behavior (TPB) guided the examination of attitudes, beliefs (spiritual beliefs, cultural beliefs, social beliefs) and knowledge of HIV/AIDS in this study. The TPB was developed by Icek Ajzen (1985) and has been extensively used in cross-cultural research specifically among Hispanics, African Americans, Caucasians, Puerto Rican Hispanics and non-Hispanics (Fazekas et al., 2001; Jemmott et al., 2002; Latkin, Forman, Knowlton, & Sherman, 2003). The theory has also been extensively used in health-related and other behavioral studies in the USA and internationally. Ajzen posits that people's actual behavior is determined by their intention to perform or not to perform behavior, depending on their perceptions of control that emanate from attitudes, subjective norms and perceived behavioral control. Social and cultural contextual differences may influence intention, which subsequently influences performance of the expected behavior (Ajzen, 1985).

For the purpose of this study, attitudes is defined as a kind of readiness for a specific action, which could be favorable or unfavorable (Ajzen, 1985). Spiritual beliefs is defined as an inner source of energy that has 'basis in religion and existentialism' (McCormick, Holder, Wetsel, & Cawthon, 2001, p. 59) and indicates religious well-being. Cultural beliefs is defined as symbolic meanings that shape social reality and personal experiences (Kleinman, 1978). Social beliefs is defined as influences in an individual's life such as family, peer and social support and preferences (Ajzen, 1985). Knowledge is defined as information and understanding participants have about HIV/AIDS risk and prevention (Kalichman & Simbayi, 2004). Additionally, using the TPB framework the study outcome, HSB, is defined as the frequency of utilization of healthcare services either at home or in the hospitals/clinics by HIV/AIDS patients. The goal of this study was to identify factors that could influence adults living with HIV/AIDSs (ALHAs) HSB, based on participants' social and cultural contextual realities. The TPB has been shown to predict target variables to guide the implementation of intervention studies (Ajzen, 1985).

Methods

Design

A descriptive design was used to address the following five research questions among a sample of ALHA: (1) What is the relationship between attitudes and HSB? (2) What is the relationship between spiritual beliefs and HSB? (3) What is the relationship between cultural beliefs and HSB? (4) What is the relationship between social beliefs and HSB? and (5) What is the relationship between knowledge and HSB?

Setting and participants

The study was conducted in The Gambia. Participants for the sample were recruited from a rural health center where patients diagnosed with HIV/AIDS were counseled and treated. Criteria for inclusion included: (1) female and male adults aged 21–65 years old; (2) diagnosed with HIV/AIDS as documented in their medical records; and (3) no history of psychiatric illnesses.

Written approval was obtained from The Catholic University of America School of Nursing, the Catholic University of America Committee for the Protection of Human Subjects and The Gambia Scientific and Ethics Research Committees. Eligible participants received detailed information related to their participation and either signed or provided a thumbprint for consent prior to participating in the study.

Procedure

The health center staff who referred participants and translated the questionnaire received one hour of training about the study, the informed consent process and confidentiality issues by the principal investigator. Staff members referred potential participants to the investigator after asking their permission. Those who agreed were screened for eligibility by the investigator in a private office. Once the study was explained in detail in the appropriate language (*Mandinka or Wolof*) those agreeing to participate in the study were asked to sign or thumbprint and date the consent form with a witness present. All interviews were conducted in private by the research team and took approximately 30–45 minutes. The participants who completed the interviews received 25 dalasis (equivalent to 90 cents) as incentive to cover transportation costs.

Study instruments

Demographic information—The first section of the study questionnaire consisted of demographic questions, such as gender, ethnicity, language, religion, marital status, age and income.

The HIV/AIDS Knowledge, Attitudes and Beliefs Patient Questionnaire

(HAKABPQ)—The HAKABPQ is a 72-item, self-report questionnaire with five subscales – Knowledge, Attitudes, Spiritual Beliefs, Social Beliefs and Cultural Beliefs (described below) – developed by the principal investigator. The items on the HAKABPQ are rated on a 4-point Likert scale: strongly disagree (1), disagree (2), agree (3) and strongly agree (4). The total score for the whole 72-item HAKABPQ is 288. No ‘not applicable’ or ‘don’t know’ options were included. Participants were asked to put a check in the box that best corresponded to the degree to which they agreed with each item. See Table 1 for information, including possible range and mean scores and coefficient alpha results for each subscale.

The Knowledge Subscale: The Knowledge Subscale was designed to measure individuals’ understanding about the cause of HIV, methods of transmission, protective behaviors to prevent spread, disease process and clinical manifestations. The higher the respondents’ total score, the higher their knowledge about HIV/AIDS. Statements such as ‘I know that a virus causes AIDS’ and ‘I can look at a person and know they have HIV/AIDS’ are included. The Knowledge Subscale is based on individual’s underlying beliefs about HIV/AIDS facts, therefore yes and no responses would be inappropriate. Three items are reverse-coded.

The Attitudes Subscale: The Attitudes Subscale measures positive and negative tendencies toward the disease. The items evaluate respondents’ attitudes toward HIV/AIDS – the higher the score, the more positive their attitude. Items such as ‘I feel powerless now that I have HIV/AIDS’ and ‘I care whether I infect other people’ are included. Three items are reverse-coded.

The Spiritual Beliefs Subscale: The Spiritual Beliefs Subscale measures the degree to which individuals’ religion, prayers, belief in God or a higher power influence how they respond to HIV/AIDS. The items in this subscale are stated to reflect the dimensions of spirituality related to religious practices and behaviors. Two items are reverse-coded. Higher scores reflect greater belief in God as well as feelings of religious well-being. Statements include ‘I believe God gives me the strength to continue living with HIV/AIDS’ and ‘I believe prayer is helping me through this illness’.

The Social Beliefs Subscale: The Social Beliefs Subscale measures individuals’ social connectedness and meaningful relationships with family members and people in their social networks and environment as they experience HIV/AIDS. High scores on this subscale reflect acceptable social beliefs and social support from significant others. Two items are reverse-

coded. Examples of statements include ‘My family supports me with my HIV/AIDS’ and ‘my friends accept me even though I have HIV/AIDS’.

The Cultural Beliefs Subscale: The Cultural Beliefs Subscale measures traditional and local practices and influences within the Gambian context as they impact on HIV/AIDS experiences. These beliefs are meanings that symbolize ‘social reality and personal experiences’ (Kleinman, 1978). High scores reflect cultural beliefs that are consistent with HIV/AIDS scientific research findings. Statements such as ‘Traditional medications cannot cure HIV/AIDS’ and ‘I believe women are free to talk about sexual issues’ are included. Four items are reverse coded.

The internal consistencies for the subscales and the whole instrument are all greater than .70, which is acceptable for a newly developed scale (DeVillis, 1991). Face and content validity were established by four HIV/AIDS experts who reviewed for content accuracy, readability, level of understanding and clarity. The HAKABPQ went through two revisions before it was used in the current study. More research studies are needed to further evaluate validity and reliability measures. It is also being used in a funded cross-national study involving pregnant and parenting women of African heritage at risk of, or living with, HIV/AIDS. A detailed description of the development and psychometric evaluation of the instrument is forthcoming in a future publication (Njie-Carr, submitted for publication).

Health-seeking behavior—Health-seeking behaviors (HSB) was measured using the total number of times (frequency) participants reported that they sought HIV/AIDS care from hospitals, health centers and/or clinics since they were diagnosed with HIV or AIDS. Questions such as ‘How many times have you gone to hospitals, health centers and/or clinics for HIV/AIDS care?’ and ‘How many times have you sought traditional healers for HIV/AIDS care?’ were included. Participants were asked to include the current visit as well. The frequency of self-reported visits was also validated by reviewing their appointment reminder cards (approximately 75% of participants). It was not possible to validate the reports from those who made walk-in visits and those who did not have their appointment cards.

Medical record review—In addition to the study questionnaire, permission was obtained to review participants’ medical records. Data abstracted from the medical records included frequency of medical visits, CD4 count results (blood testing for HIV status of the patient’s immune response to HIV to determine severity of the disease). This is one criterion for AIDS diagnosis and an indication for initiating antiretroviral treatment. HIV viral load is negatively correlated with CD4 count.

Data analyses

Data were analyzed using the Statistical Package for the Social Sciences (SPSS)-14.0. Descriptive statistics such as percentage, mean, median and standard deviation analyses and univariate statistics were used to summarize information obtained from the Personal Data Form and clinical information. Bivariate correlation analysis was computed to determine zero-order relationships among the variables. Independent *t*-tests were computed to compare group means. Multiple regressions with a hierarchical model for ordering the entry of variables into the equation, based on empirical and theoretical considerations (Munro, 2001) was utilized, controlling for severity of disease (CD4 counts). To obtain statistical power a moderate effect size of .15, maintaining a power of 0.80, alpha of 0.05, for five variables, a minimum sample size of 92 was required (Polit & Beck, 2004).

Results

Description of sample

Of the 98 participants approached for study enrollment, 93 participants were eligible, consented and completed all sections of the questionnaires. The participants in the study were 26 men and 67 women ranging from 21 to 65 years, with a mean age of 36.66 years ($SD = 10.05$). Independent sample t -test suggests that the males had a mean of 37.73 visits ($SD = 39.44$) and females 33.07 visits ($SD = 42.29$). However, the HSB mean scores did not differ significantly, $t(91) = .485$; $p = .629$. Levene's test for equal variances was not significant ($p = .828$). All participants were infected with HIV and/or were diagnosed with AIDS. Of participants, 6 (6.5%) were able to read and complete the questionnaires in English and 87 (93.5%) had the questionnaires translated by the research team members in *Mandinka* and *Wollof*; 71 (76.3%) participants were married and 8 (8.6%) were single; the rest were widowed, separated or divorced. With regard to religion, consistent with national data, 93.5% of participants were Muslim and 5.4% were Christians. One participant considered himself 'agnostic'. The majority (66.7%) reported no formal education and 5.5% reported 13 years of formal education or more ($M = 2.98$; $SD = 4.78$). Participants' monetary income ranged from no income to D3500 (\$125.00) a week (\$1.00 USA was equivalent to D28.00). The median income was D5.00 (18 cents) per week.

CD4 count—Participants' CD4 counts ranged from 20 to 970 ($M = 382.56$; $SD = 225.78$), indicating a large mean difference in participants' CD4 counts and, therefore, wide variation in the disease stages. More than two-thirds (68.8%; $n = 64$) had HIV with no manifestation of AIDS symptoms or low enough CD4 counts (<200) to be classified as having AIDS. The remainder (31.2%; $n = 29$) had been diagnosed with AIDS with varying signs and symptoms.

Health-seeking behaviors—Number of participants' visits ranged from 1 for newly diagnosed patients to 232 times. Health-Seeking Behaviors scores were positively skewed with a median of 18 visits. Four participants had extremely high number of visits – 142, 144, 145 and 232. When these outliers were removed and data re-analyzed, it failed to significantly change the results. With regard to HIV status and HSB scores, the 64 participants diagnosed with HIV had a mean of 32.44 visits ($SD = 41.85$) and the 29 diagnosed with AIDS had 38.66 visits ($SD = 40.63$). Even though those with AIDS had a higher HSB mean score compared to those with HIV, the mean difference in the scores was not statistically significant. Therefore, HIV and AIDS participants were found to have similar HSB; $t(91) = -.670$; $p = .51$. The Levene's test for equal variances was not significant.

Relationship between attitudes, beliefs, knowledge and HSB

Five variables of attitudes, spiritual beliefs, cultural beliefs, social beliefs and knowledge and the dependent variable, HSB, were examined and are presented on Table 2. The zero-order correlations were all weakly related to HSB and moderately related to each other at $p \leq .03$.

Multiple regression was conducted to examine the relationship between HSB and all the predictor variables in a hierarchical order of entry (attitudes, spiritual beliefs, cultural beliefs, social beliefs and knowledge) controlling for severity of disease (CD4 counts). Findings indicate that the combined contribution of the five variables accounted for 11% of the variance in HSB. Attitudes was found to be the only variable contributing significantly to the variance $F(1, 90) = 4.865$; $p = .03$. The multiple regressions suggest that participants with positive attitudes were more likely to seek HIV/AIDS care. No significant relationships were found between the other independent variables and HSB (see Table 3). The R^2 change was highest, though minimally, with attitudes.

There was no relationship between spiritual beliefs and HSB among ALHA in the Gambia in this model with $F(1, 89) = 1.693$; $p = .20$. However, participants' spiritual beliefs scores were higher when compared to the other subscales, with item mean scores clustering around 3.6 (out of 4); however, this failed to significantly contribute to the variance in explaining HSB in this model.

Discussion

The Gambia continues to see a steady increase in HIV/AIDS rates as more attention is placed on the pandemic and people become more knowledgeable about the disease. Attitudes and beliefs have been shown to influence how people perceive their health and engage in HIV-prevention and risk-reduction activities. Attitudes and beliefs vary within and across societies and practices are passed from generation to generation. However, limited research exists in the Gambia related to determinants of HSB among Gambian ALHA. Therefore, the research gap this study addressed was to determine the influence of attitudes, spiritual beliefs, cultural beliefs, social beliefs and knowledge on HSB of ALHA in the Gambia.

This descriptive study is unique in investigating attitudes of HIV/AIDS patients and differentiating attitudes' independent contribution in explaining variation in HSB in this model, which has not been previously found in the literature. The significant relationship between attitudes and HSB found in this study is consistent with the TPB, which suggests that positive attitudes do play a role in health behaviors. The results fail to demonstrate that normative beliefs (spiritual, social and cultural beliefs) influence HSB as explicated in the TPB. Even though Spiritual Beliefs was not statistically significant, the data, as previously reported, supports the notion that it is an important variable. Therefore, it should be considered in designing HIV-prevention studies in this group of Gambian adults. It is possible that the model used in the order of entry of the variables in the study could be one explanation for the non-significant results for the Spiritual Beliefs variable.

As discussed previously, the age group in this sample ranged from 21 to 65 years old. Over 92% were between the ages of 21 and 50, which is consistent with the age group most infected with HIV in the Gambia. The majority (76.3%) of participants were married, however specific questions were not asked related to polygamous marriages. Almost half (44%) of the study participants reported no income, which could influence their access to prevention, treatment and care for HIV/AIDS. The majority (68.8%) of the participants had not been diagnosed with AIDS.

Attitudes

All of the independent variables together accounted for 11% of the variance in explaining HSB, but only attitudes significantly contributed to this variance. The Attitudes subscale asked participants about their attitudes toward HIV/AIDS and their response to the disease ranging from personal feelings, comfort and concern for others, to interest in life. Generally, participants in this study agreed or strongly agreed to all the items except items 22 and 23, related to feeling powerless and alone. It is important to note that these items were reverse-coded. Participants reported feeling powerless and unable to perform their routine chores as well as they did before they were diagnosed. Those who reported feeling alone since they had HIV/AIDS said they could not tell others in their families for fear of being shunned and stigmatized.

Previous studies that have examined attitudes related to HIV/AIDS found significant results, which were shown to have influenced behaviors related to healthcare prevention, treatment and health promotion (Kakoko, Astrom, Lugoe, & Lie, 2006). Rahlenbeck (2004) found significant gender differences related to attitudes between Rwandan men and women health

workers toward HIV-infected individuals. However, these studies did not investigate the attitudes of people living with HIV/AIDS and how their attitudes influenced HSB. Nachega and colleagues (2005) investigated HIV-infected individual's knowledge, attitudes and practices in Soweto, South Africa. The questions on attitudes were not clearly differentiated from the knowledge questions in their study; however, in this present study the independent contribution of attitudes was determined.

Spiritual beliefs

Participants' spiritual beliefs was found to be high, with item mean scores clustering around 3.6 out of 4; however, it failed to contribute to the variance in explaining HSB in this model. The item analysis of this subscale revealed that participants relied very much on prayers, their belief in God and religion to live with HIV/AIDS. As with most African Americans in the US (Johnson, Elbert-Avila, & Tulskey, 2005; Newlin, Knafl, & Melkus, 2002), people's religion in the Gambia is important in their everyday lives; therefore, integrating their spiritual beliefs is essential for sustainable and effective HIV-prevention interventions.

Prayer was found to influence hope, support and inspiration, which was associated with spirituality (Avants, Marcotte, Arnold, & Margolin, 2003; Uys, 2003). Some participants in the current study believed that God gave them the disease because He is the most powerful and has control of all, including how people get diseases. Significant relationships were not found with spiritual beliefs, as well as knowledge, social beliefs and cultural beliefs, perhaps because of the model used in ordering the entry of the variables.

Limitations

The following limitations were identified in this study: (1) the collection of data at only one health center limits external validity. Additionally, only participants who came to the clinic were interviewed and it is possible that those with advanced AIDS disease were too sick to seek care and others failed to keep their clinic appointments for other reasons. Therefore, the findings can only be generalized to similar samples with caution; (2) the use of self-report questionnaires to obtain data has limitations. For example, because of the face-to-face nature of self-report instruments, participants may have only divulged information they perceived as acceptable to the investigator and research team; (3) four staff members assisted with translating the approved English version of the questionnaires into *Mandinka* presenting potential for random errors; (4) the HSB questions used in this study only captured one dimension of HSB – the frequency of HSB; and (5) the independent variables were highly intercorrelated, resulting in multicollinearity and rendering the independent contribution of the variables insignificant.

Conclusion

The literature demonstrates that positive attitudes influence HIV-risk prevention behaviors. The current study supports the notion that attitudes influence HSB among participants with HIV/AIDS in The Gambia. However, cause and effect cannot be inferred because this study used a descriptive design; rather a weak relationship between attitudes and HSB was determined. The significance of these data is that attitudes can be considered a significant target variable when designing HIV/AIDS-intervention studies.

Research recommendations

In designing future effective and sustainable intervention studies addressing people's spirituality, it is important to integrate belief in God as the all powerful who determines all events in their lives. The results in this study demonstrated that Gambian ALHA believe that God gave them the HIV infection or AIDS. Addressing this belief in intervention studies would

help them better embrace HIV-prevention strategies within their social contexts. Culturally sensitive interventions within people's social context are needed to stimulate global HIV-prevention behavioral changes. This can be successfully achieved if valid and reliable instruments are available and amenable to cross-cultural comparative research.

Perception of health as a mediating variable is an area that needs to be investigated in the TPB's explication of HSB among Gambian adult patients with HIV/AIDS. Jemmott and colleagues (2002) found that normative beliefs significantly influenced health behaviors. Fazekas and colleagues (2001) found control beliefs to be significant in participants' intention to use protection. This further validates the use of intention as direct influence on health behaviors, which the theory purports. The current study did not measure intention or perception of health as direct influence on HSB in examining the influence of attitudes, spiritual beliefs, cultural beliefs, social beliefs and knowledge on HSB.

Anecdotal reports in the current study revealed that participants were afraid to disclose their status to their male spouses; some reported they did not plan ever disclosing to them. Additionally, there is need for systemic studies on decision making related to HIV/AIDS disclosure and how this influences HSB. Intervention studies designed to decrease HIV risk, while ensuring that people safely adhere to their cultures without fear of stigmatization and social isolation, are essential. These studies could inform health policies for sustainable HIV-intervention programs.

Acknowledgments

I would like to gratefully acknowledge the people who contributed to the successful completion of this dissertation at The Catholic University of America. My heartfelt thanks to Dr. Jean Toth, dissertation chair, for her continued support, guidance and patience and Dr Elizabeth O'Brien and Dr. Lucy M. Cohen, my readers, for their expertise in content areas addressed in the study and for their guidance during each phase of the writing. My sincere gratitude goes to Dr Saihou Sabally and his staff in The Gambia. Finally, I would like to extend my gratitude to the Gambian participants who gave their time and support in making data collection possible. Without their courage to participate, data collection would not have been possible. Thank you, *gerejef, abarka*. Special thanks to Dr. Nancy E. Glass, Associate Professor at the Johns Hopkins University School of Nursing, for reviewing the drafts for publication.

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Table 1

Information on the HAKABPQ.

Variable	Total number of items/possible range	Actual mean score	SD	Alpha
Knowledge	17 (17–68)	57.53	7.14	.85
Attitudes	14 (14–56)	46.1	5.6	.75
Spiritual Beliefs	12 (12–48)	42.24	4.95	.86
Social Beliefs	14 (14–56)	43.5	6.65	.74
Cultural Beliefs	15 (15–60)	51.7	7.19	.87

Table 2
Pearson product moment correlations among the predictor variables and HSB (*n* = 93).

Variable	CD4	A	Sp B	CB	So B	K	HSB
Bivariate correlations							
CD 4 count							
Attitudes (A)	-.005						
Spiritual Beliefs (Sp B)	-.076	.745 ^c					
Cultural Beliefs (CB)	.020	.718 ^c	.736 ^c				
Social Beliefs (So B)	-.162	.401 ^c	.543 ^c	.495 ^c			
Knowledge (K)	-.068	.752 ^c	.745 ^c	.667 ^c	.493 ^c		
HSB	.014	.226 ^a	.256 ^a	.248 ^a	.233 ^a	.302 ^b	-

Notes: HSB = health-seeking behaviors;
^a significance at *p* ≤ .03;
^b significance at *p* = .003;
^c significance at *p* ≤ .001.

Table 3

Hierarchical regression summary of health-seeking behaviors regression on CD4 count, Attitudes, Spiritual Beliefs, Cultural Beliefs, Social Beliefs and Knowledge.

Step	Variable	Standard coefficient	Beta	Cummulative R ²	R ² change	F change	Sign
1	CD4 count	.01		<.001	<.001	.018	NS
2	Attitudes	.23		.051	.051	4.865	**
3	Spiritual beliefs	.20		.069	.018	1.693	NS
4	Cultural beliefs	.11		.074	.005	0.478	NS
5	Social beliefs	.13		.085	.011	1.059	NS
6	Knowledge	.24		.105	.020	1.883	NS

Notes:
** significant at $p = .03$ level;
NS = not significant.