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IN ZIMBABWEAN PREGNANT WOMEN

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ABSTRACT

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There is an absence of research on the HIV/AIDS epidemic in Zimbabwe. Moreover, most of the current research on HIV/AIDS in Third World countries does not address the influence of the country's cultural context. Therefore, this research is important for three reasons: (1) HIV/AIDS is an epidemic; (2) women of color are the most at risk group; and (3) there is little research addressing the impact of traditional culture on HIV/AIDS in Black Zimbabwean women. This study addresses the influential factors on AIDS knowledge in Zimbabwean pregnant women. The purpose of this research is to determine the relationship between age, education, religiosity, maprofita and AIDS knowledge in Zimbabwean pregnant women.

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Statement of the Purpose

This study addresses the influential factors on AIDS knowledge in Zimbabwean pregnant women. The purpose of this research is to determine the relationship between age, education, religiosity, and AIDS knowledge in Zimbabwean pregnant women.

Significance of the Problem

There is an absence of research on the HIV/AIDS epidemic in Zimbabwe. Moreover, most of the current research on HIV/AIDS in Third World countries does not address the influence of the country's cultural context. Therefore, this research is important for three reasons: (1) HIV/AIDS is an epidemic; (2) women of color are the most at risk group; and (3) there is little research addressing the impact of HIV/AIDS on women of color in Zimbabwe.

First, the contraction of HIV/AIDS is a national epidemic affecting millions. At least 30 new infectious diseases have emerged in the last 20 years, including HIV/AIDS from which 26.6 million adults may be infected by 2000.

Second, women of color are the fastest growing group at risk of contracting HIV/AIDS. One of the reasons is the socioeconomic challenges faced by minority women. Women of color receive inadequate health care primarily because of economic deprivation and delayed diagnosis. Additionally, with disenfranchised populations such as minority women, there is an increased likelihood of at-risk factors such as sharing infected

drug needles and having multiple sex partners. These conditions for women of color are especially compounded by their physiological and anatomical structure which makes them more susceptible to the contraction of the HIV/AIDS virus than their White counterparts. The vaginal and cervical orifices are more vulnerable to the retention of seminal and vaginal fluids which transmit the disease (Spencer, 1990).

Third, in spite of the alarming spread of HIV/AIDS, there is a paucity of research involving those high-risk populations such as minorities and women. The social, cultural, and educational factors which may influence the incidence of HIV/AIDS among minority women have been understudied. Given the rapid progression of the HIV/AIDS virus in Zimbabwe, it would be advantageous for countries to understand the contributing factors associated with this phenomena, as they are also in danger of repeating such epidemic proportions. This study will examine the social, cultural, and educational practices of pregnant Zimbabwean women.

It has been shown that culture and tradition are large contributing factors to the incidence of HIV/AIDS (Spencer, 1990). Although women are the largest HIV/AIDS infected population, to date, no studies have been published which examine their cultural beliefs and behaviors. This study will help to increase the cultural knowledge base for teachers and practitioners in the education of younger females.

REVIEW OF RESEARCH

There are many factors associated with the high rate of HIV/AIDS infection in Zimbabwe. The cultural HIV/AIDS context in which the woman lives involves a unique interface of providing children to increase the Zimbabwean economy, understanding HIV/AIDS through religious beliefs, and examining her role in the marital relationship. It is important to understand these cultural influences that help shape the perceptions of HIV/AIDS in Zimbabwean pregnant women.

Women's Reproductive Roles in Zimbabwean Economic Development

In most developing countries, lower levels of production and incomes mean that individuals, their families, communities, health-care delivery organizations, and government agencies all have fewer resources for the AIDS pandemic (Norr, Tlou, & Norr, 1993). They divide developing countries into two groups. The first group consisting of the poorest countries that comprise most of sub-Saharan Africa and Asia all have a per capita gross national product (GNP) lower than $600 per year compared to the average GNP per capita of $12,000 for the industrialized countries. The second group consists of the middle-income developing countries that predominate Latin America, the Middle East, North Africa and the Pacific, which have average GNPs of less than $2,000 (UND Programme, 1991).

Compared to industrial countries, the non-farming resources of developing countries are more concentrated geographically, leading to greater urban-rural and

regional inequalities and potential conflicts over scarce resources. Most developing countries rely on only a few raw materials for international trade, making their economies more volatile and more dependant on the larger industrial economies of Japan, Germany, Great Britain, France, and the United States. When industrialized nations suffer recession, developing countries are affected by decreased exports and decreased aid from foreign donors. These economic factors have serious implications for women in the HIV/AIDS pandemic in developing countries, such as Zimbabwe. Cultural factors such as reproductive traditions confound the economic struggles to effectively meet the challenges of HIV/AIDS.

Women's reproductive roles increase their likelihood of infection with HIV. It is important to consider the strong desire for men and women to have children, even in the face of HIV/AIDS infection. Kurth (1993) asserts that many women have traditional roles that can have an adverse influence on HIV/AIDS diagnosis. Women often see themselves as care providers, as the ones who must take care of everyone else's needs, thus affecting their experiences with HIV/AIDS disease from testing to clinical care. The experience of one HIV counseling center, for example, has been that women "to an incomparably larger extent than men [feel] responsible for the life, the well-being and the distress of their partners, friends and relatives" (Hutterer, Blaas, Oberauer, Ogris, & Zupan, 1991). Thus, many of these women took excellent care of their children but neglected to take care of themselves.

Children provide labor, economic contributions, emotional benefits, and other values to the family. When examining women specifically, however, the significance of

childbearing goes beyond conditions in the household. According to Durrant (1994), childbearing renders the most important means to an acceptable social position for women. She further asserts that a major obstacle for women who wish to protect themselves against HIV infection is the desire for children. In many cultures, childless women face a massive stigma; sometimes the penalty is desertion or divorce. If women are dependant on children for status and economic security, AIDS poses a serious threat. When a woman is confronted with the decision of whether or not to have a child or avoid possible HIV infection, the child is preferred.

Religiosity

The three streams of religious beliefs currently held by most Zimbabweans are traditional ways, Christianity, and newer indigenous African Christian movements.

The mixture of traditional respect for ancestors, traditional customs, and traditional beliefs all form traditional ways. Due to the massive number of conversions from the evangelization of Sub-Saharan Africa, Christianity increasingly became an attractive spiritual alternative (Bourdillon, 1987). Yet, even with the emergence of more Christian churches and beliefs, the Zimbabwean people kept the traditional ways and rituals. There was a need for the older traditional ways of the ancestors and the newer ways of Christianity to combine so that the Zimbabweans could benefit from both the past and the present. The maprofita holds this new belief system (Bourdillon, 1987). Typically a woman, the maprofita is a spiritual authority figure who guides peoples' lives by using both traditional ways and Christianity. Within the cultural context, the maprofita has a

high authority level and is highly regarded as a socializer and educator. These traditional ways are continued by some persons who are Christian (McAdoo & Runkuni, 1993).

The majority of Christian churches are of European and American origin. The churches established day and boarding schools that were the only source of highly valued education for a long time (Bourdillon, 1987). The churches allowed social mobility of a few, but provided a form of control that was used during the period of colonial dominance. The new African movements, the Zionistic and Apostolic churches, are growing religious movements that originated in Africa, which, in turn, combines elements from the two Christian and Traditional religions (McAdoo, 1993).

Religiosity, Sexual Practices, and HIV/AIDS

Religiosity has been conceptualized as a personal control against deviance and, therefore, positively associated with conventionality and conformity (Rohrbaugh & Jessor, 1975). Mahoney (1980) stated that there were conflicting findings for the relationship between sexual intercourse and religiosity. He found that for a sample of 441 college students, religiosity was negatively related to sexual experience across a wide range of sexual behaviors and dimensions of sexuality. His findings also indicated that the personal control in religiosity may be more complex and less complete than Rohrbaugh and Jessor's (1975) conclusions suggest.

Given these mixed findings, religiosity and its association with conformity in relation to AIDS and sexuality knowledge, attitudes, beliefs, and practices were assessed using a sample of Black South African first-year college students (Nicholas & Durrheim,

1995). The results indicate that stated religious commitment is associated with a lower propensity to engage in sexual intercourse and later age of onset sexual activity. Nevertheless, on the average, the high-scoring religious subjects had been sexually active but were less likely than the low-scoring subjects to make use of safe sex practices.

Women in the Marriage Context

Emphasis on the importance of gender is particularly significant in the African context, where gender distinctions are strongly marked in both traditional rural settings and in the new urban areas. A major context in which gender differences emerge is in marriage and its imposition of different expectations on women and men. Udvardy and Cattell (1992) assert that marriages create different pathways for women and men through which to seek the same ultimate goals of monetary and food security, physical and social support, influence in the affairs of younger kin and community members, and positions of power.

Until recently many Zimbabweans were polygamous. A survey that was done in 1984 showed that one woman in eight was a second or third wife (Young, 1989). It has been suggested that the polygamous marital practices foster competition among wives for their husbands affections which may lead to unsafe sexual practices that increase the likelihood of HIV/AIDS contraction. Many women felt that they were at risk because of their male partner's multiple sexual relationships.

The risk occurs partly with their subordinate position in the marriage relationship obligating their participation in sexual activities (Spencer, 1990). Most women are

contracting HIV through heterosexual intercourse and, according to UNAIDS, more than 75% of all HIV infections come from this source (Perrins, 1995). The sexual behavior of HIV-positive and HIV-negative women in Africa has been found to be very similar (Bell, 1996). African marriages are systems of unequal, gendered hierarchies (Cattell, 1989).

Most cases of infection in women in the developing world result from straight-forward sexual relations within regular partnerships, usually between an infected husband and wife. This risk is increased by the expectation and requisite that women bear children. Durrant (1994) states that women can, and do, use birth control in various forms against the desires and without the knowledge of their husbands; yet this is extremely rare because of the wife's subordinate position. Moreover, condoms (the only form of birth control other than abstinence that is also effective in reducing HIV/AIDS infection) require agreement from the husband.

The fading of polygamy may tempt men to choose women from outside rather than remaining faithful to their wives (McAdoo, 1996). Poor men leave their wives in the country and resort to prostitutes or informal marriages in the towns. Rich men in town may attract more women. Those men who are mobile are most at risk of spreading infection. The virus spreads along lorry drivers' routes throughout the African countries.

Further Research

The majority of the infected women are in developing countries, particularly in sub-Saharan Africa. The growing incidents of HIV/AIDS in women is more problematic and devastating for families than the incidence with men. The maternal fatalities are

critical because the major responsibility of child care and rearing falls mostly on women. The social functioning and roles that women play are more significant for the most part than men (Ross and Clark-Alexander, 1996).

Every year in Zimbabwe, there are an estimated 120,000 of HIV positive women (European Collaborative Study, 1994). In Harare, Zimbabwe in 1990 a study of 1,168 pregnant women from four antenatal clinics were surveyed to determine the HIV prevalence rate. An overall prevalence rate of 30.4% was obtained, with a range for each clinic from 23.6% to 33.2%. The single pregnant women and the unemployed were more likely to test positive for HIV (Mbizvo, 1996).

In a study of 1,532 Zimbabwean secondary school pupils from 12 schools, most knew that AIDS is fatal and incurable. 40% felt that most African HIV/AIDS infected people were homosexual, that 40% thought that you can catch AIDS from a toilet seat, that mosquitos carry AIDS, and that you can have AIDS and still look healthy (Wilson, Greenspan & Wilson, 1989). Pupils from homes in the urban area were better informed than those from the rural area.

In a study of 194 University of Zimbabwe education students and employed adult education students, McAdoo *et al.* found that the students were knowledgeable about HIV/AIDS infection, transmission procedures, contraceptive methods, and were realistic about means of prevention of infection (McAdoo, Simmons, Webster, Magoo & Cummings, 1995).

Although a religious orientation is a belief in a supreme being, it may not always mean church attendance or membership (McAdoo, 1995). The importance of religion and

the church in coping in the lives of African Americans has well been documented (Billingsley, 1968, 1992; Frazier, 1963; Hill, 1971; Pipes, 1992). Brown and Gary (1985) found that religious participation is a source of support with anxiety-related problems. Studies have shown that the church provides emotional well-being (Neighbors and Jackson, 1984) and that women are more religiously involved than men (Taylor, Thornton and Chatters, 1987).

Summary

There are many potential factors that influence the reproductive lives of Zimbabwean women. Their pregnancies not only effect the immediate family, but also the nation's economy as farm labor is a major form of economic advancement. With the threat of the HIV/AIDS epidemic, this presents a major threat to the Zimbabwean economy as many children will be born with HIV/AIDS and therefore not be a viable part of the labor force. Moreover, HIV/AIDS is an impending invisible threat as women are contracting it through heterosexual intercourse with their husbands. Furthermore, traditional and spiritual influences provide a framework for understanding HIV/AIDS.

Research Questions

From this review of research, a set of guiding research questions emerged.

- What is the relationship between religiosity and AIDS knowledge in Zimbabwean pregnant women?
- What is the relationship between maprofita as a cultural variable and AIDS

knowledge in Zimbabwean pregnant women?

- What is the relationship between age and AIDS knowledge in Zimbabwean pregnant women?
- What is the relationship between education and AIDS knowledge in Zimbabwean pregnant women?

Hypotheses

H^1) Zimbabwean pregnant women who are older will have significantly high scores on the AIDS Knowledge scale.

H^2) Zimbabwean pregnant women who have high levels of education will have high scores on the AIDS Knowledge scale.

H^3) Zimbabwean pregnant women who have high scores on the Religiosity Scale will have high scores on the AIDS Knowledge scale.

H^4) Zimbabwean pregnant women who visit Maprofitas will have high scores on the AIDS Knowledge scale.

Variables: Independent and Dependent

Independent:

1. Respondent's age
2. Respondent's level of education
3. Respondent's level of religiosity
4. Respondent's use of a Maprofita

Dependent:

1. Respondent's AIDS Knowledge

METHODS

Research Design

The purpose of this research is to determine the relationship between age, education, religiosity, and AIDS knowledge in Zimbabwean pregnant women (n=206). The AIDS Knowledge Scale and Religiosity Index, characteristics of Zimbabwean women's traditions and sexual awareness, will be assessed. HIV/AIDS related questions were based upon a review of recent literature of the characteristics that research conducted by the Centers of Disease Control have found were related to HIV/AIDS infection.

Instrumentation

Age was self reported by the respondent.

Education was self reported by the respondent.

Religiosity Scale was based on the following questions: (1) the religious level of the respondent (not, fairly, very religious); (2) frequency of respondent's and partner's church attendance (rarely, monthly, weekly). Each of the items is scored on a three-point scale. Higher scores reflect higher levels of religiosity, and lower scales reflect lower levels of religiosity.

Conceptual Definition: Religiosity extends beyond church attendance or membership and relates instead to the importance of religion and spirituality in everyday life.

Operational Definition: Religiosity will be measured in this study with the Religiosity Scale (Bailey, 1993; McAdoo, 1983). It consists of five items that measure: the frequency of attendance at religious services; frequency of prayer; degree to which every-day decision making is influenced by God; degree of religiosity; and the importance of religion in individuals' personal lives.

Maprofita is a spiritual authority figure who guides peoples' lives by using both traditional ways and Christianity. Respondents were asked the extent to which they use the maprofita: (1) never; (2) sometimes; (3) often.

The Sample

The sample was composed of 206 pregnant women who were patients at two antenatal clinics in Harare, Zimbabwe. The M'bare Edith Opperman Clinic was located in the "high density" low socioeconomic area within the original restricted area for black Zimbabwe residents. The M'bare area had a total population in 1995 of 126,443 persons (Posted statistics, 1996). The Burdoriro Clinic is in a newer suburban development of black Zimbabwean residents that is of somewhat higher SES background. This area in 1995 had an estimated population of 78,536; 15,707 (20%) were of child bearing age with 627 expected pregnancies that year or 4% of those of child bearing age (Posted statistics, 1996).

Data Collection

Before any questions were asked or procedures begun, each woman was

introduced to the project and told of the objectives and procedures. They were told that the research was approved by the Zimbabwe Research Council and the director of Health Services of Harare. They were then asked to sign that the project had been explained to them and that they were aware of all of the procedures.

Data Analysis

Variables were dichotomized and Lambda correlational analyses were used to examine associations between age, education, religiosity, maprofita, and AIDS knowledge. Analysis of variance statistics were used to examine significant associations between age, education, religiosity, maprofita, and AIDS knowledge.

RESULTS

A preliminary correlational analysis was conducted to determine the relationships between the independent variables and dependent variable: age, education, religiosity, maprofita and AIDS knowledge (Tables 1-4). There was a significant relationship between the Zimbabwean mothers' education and knowledge of AIDS transmission through the toilet seat (r=.19, p<.001); knowledge on the transmission of AIDS from giving blood (r=.17, p<.01); and knowledge on AIDS transmission through sharing needles (r=.16, p<.05). Zimbabwean mothers' age and knowledge on AIDS transmission through sharing needles with a drug user (r=.16, p<.05); knowledge on AIDS transmission from sharing water with a person who has AIDS (r=.17, p<.05); knowledge on AIDS transmission associated with condom usage (r=.20, p<.01); and knowledge on AIDS transmission due to sex with multiple partners (r=.29, p<.001). There was a significant relationship between Zimbabwean mothers and knowledge on AIDS transmission through kissing (r=.17, p<.01); knowledge on AIDS transmission from a toilet seat (r=.18, p<.01); knowledge on AIDS transmission from sharing water (r=.17, p=.01); knowledge on AIDS transmission from a man having sex with an AIDS infected woman (r=.19, p<.01); knowledge of AIDS transmission to an unborn child (r=.18, p<.01); and knowledge on what an AIDS infected person looks like (r=.13, p<.05); knowledge on AIDS transmission through prostitution (r=.18, p=.01); knowledge on AIDS transmission from sex with multiple partners (r=.18, p<.01); and knowledge of AIDS mortality (r=.21, p<.01).

H^1 Zimbabwean pregnant women who are older will have significantly high scores on the AIDS Knowledge scale.

Lambda correlational analysis and one-way analysis of variance was conducted to examine the relationship between age and AIDS knowledge (Table 5). The older Zimbabwean mothers tended to have the higher AIDS Knowledge scores. The analyses indicate that more older mothers believe that AIDS can be transmitted even with the use of a condom (M=4.14, p<.01); that a mother with AIDS can give it to her unborn baby (M=2.33, p<.05); and that sex with multiple partners can help the spread of AIDS (M=2.62, p<.01). They believed that AIDS can be spread by sharing a drug needle with a drug user who has AIDS (r=.17, p<.05), that condom use could lower the spread of AIDS (r-.20, p<.01), and that sex with multiple partners will increase chances of AIDS spread (r=.29, p<.001).

H^2 Zimbabwean pregnant women who have high levels of education will have high scores on the AIDS Knowledge scale.

Lambda correlational analysis and one-way analysis of variance was conducted to examine the relationship between education and AIDS knowledge (Table 6). Zimbabwean women with less education believed that AIDS can be spread by sharing a needle with a drug user who has AIDS (r=-.25, p<.001); that prostitutes have a higher chance of AIDS transmission (r=-.22, p<.01); AIDS can be spread if a man has sex with a woman who has

AIDS (r=-.19, p<.01); and if a man has sex with a man who has AIDS (r=-.15, p<.05). Mothers with high education levels also believe that pregnant mothers with AIDS can give AIDS to her unborn baby (r=-.14, p<.05) and that having sex with multiple partners can raise one's chance of getting AIDS (r=-.18, p<.01).

Zimbabwean mothers with less than a primary school education believe AIDS can be transmitted if a man has sex with an infected woman (M=2.00, p<.01); if a person shares a needle with a drug user (M=3.25, p<.01) and if a person has sex with multiple partners (M=3.00, p<.05). Mothers with a primary level education believe that AIDS can be transmitted if one has sex with a prostitute (M=2.74, p<.01).

H^3 Zimbabwean pregnant women who have high scores on the Religiosity Scale will have high scores on the AIDS Knowledge scale.

Lambda correlational analysis and one-way analysis of variance was conducted to examine the relationship between "how religious" Zimbabwean mothers are and their AIDS knowledge (Table 7). The Zimbabwean women who were very religious believe that one can get AIDS from a blood transfusion (r=.18, p<.01) and that one can have AIDS virus without being sick from it (r=-.17, p<.01).

Zimbabwean mothers who were not religious believe that one can get AIDS from a blood transfusion (M=3.57, p<.05); that one can get AIDS from shaking hands (M=5.19, p<.01); and that one can spread AIDS by having sex with an infected man (M=1.76, p<.001).

Mothers' Church Attendance

Mothers who do not go to church believe that one can get AIDS from a blood transfusion (M=4.00, p<.01); believe that one can get AIDS from shaking hands (M=5.25, p<.01); believe that AIDS can be spread from sex with an infected woman (M=1.75, p<.001); believe that AIDS can be spread from sex with an infected man (M=1.75, p<.001); and believe that a mother can spread AIDS to her unborn baby (M=2.25, p<.001) (Table 8). Zimbabwean mothers who attended church more frequently believed sex with someone who uses drugs increases the chance of transmission (r=.21, p<.01); they believed that AIDS can be spread when a man has sex with a woman who has it (r=.15, p<.05); and when a woman has sex with a man who has it (r=.15, p<.05). Mothers who attend church on a weekly basis believe that AIDS can be spread by having sex with a drug user (r=2.63, p<.01).

Partners' Church Attendance

Partners who attend church on a weekly basis believe that AIDS can be spread through sex with an infected man (M=1.35, p<.01) and shaking hands (M=4.74, p<.05) (Table 9).

Zimbabwean mothers with partners who attended church more frequently believed that one can get AIDS from kissing on the mouth (r=.13, p<.05); AIDS can be spread when a man has sex with a woman who has it (r=.14, p<.05); but partners who went to church often strongly believed that women can get AIDS by having sex with a man who has AIDS (r=.21, p<.01).

Traditional Healers

Zimbabwean mothers who often visit traditional healers believe that one cannot get AIDS from kissing on the mouth (r=.18, p<.01) or from sitting on the toilet seat (r=.20, p<.01), but believe that it can be spread by sharing a needle with a drug user who has it (r=.16, p<.05), by giving blood (r=.18, p<.01), from a blood transfusion (r=.13, p<.05), and by sharing a glass of water with someone who has AIDS (r=.14, p<.05) (Table 10). AIDS transmission when a man has sex with an infected woman (r=.29, p<.001) and when a woman has sex with an infected man (r=.28, p<.001) are strongly associated with mothers who visit the traditional healers often. Zimbabwean mothers who often visit traditional healers also believe that AIDS can be spread when a man has sex with an infected man (r=.19, p<.01) and that condoms help to slow the spread (r=.19, p<.01).

There is a significant relationship between mothers who visited traditional healers and those who believe a pregnant woman will give AIDS to her unborn child (r=.30, p<.001); those who believe that prostitutes are likely to get it (r=.27, p<.001); those who believe that masturbation can cause AIDS (r=.15, p<.05); those who believe that eating healthy foods can prevent AIDS (r=.16, p<.05); those who believe that you can tell if someone has AIDS just by looking at them (r=.19, p<.01); those who believe that sex with more than one partner will help you get AIDS (r=.24, p<.001) and that people with AIDS will die from it (r=.30, p<.001).

Mean comparison scores were conducted to determine the relationship between AIDS Knowledge and mothers who visited the traditional healers. Mothers who reported that they "sometimes" visit a traditional healer believe that one can become infected with

AIDS from giving blood (M=2.50, p<.05); that once can get AIDS through a blood transfusion (M=2.50, p<.05); that one can get AIDS from sex with an infected woman (M=1.28, p<.001); that one can get AIDS from sex with an infected man (M=3.36, p<.05); and that AIDS can be transmitted through the sharing of a drug needle (M=2.63, p<.01).

Traditional Ways

Zimbabwean mothers who try to hold onto traditional ways believe that one can get AIDS by shaking hands with someone who has it (r=.14, p<.05) and they believe that there is a cure for AIDS (r=.16, p<.01) (Table 11). Zimbabwean mothers who are holding onto traditional ways believe that one can get AIDS by sharing a needle (M=2.25, p<.001); that AIDS can be transmitted by having sex with an infected man (M=1.40, p<.001); that a mother can give AIDS to her unborn baby (M=1.52, p<.05); that it can be transmitted through a blood transfusion (M=2.69, p<.001); that it can be spread by having sex with an AIDS infected woman (M=1.36, p<.001); that one can have AIDS without being sick (M=2.63, p<.01); that the use of a condom will stop the spread of AIDS (M=2.60, p<.01); that AIDS can be spread from sex with multiple partners (M=1.67, p<.001); and that someone with AIDS will die from it (M=1.58, p<.001).

Zimbabwean mothers who do not hold onto the "traditional ways" of life believe that one can spread AIDS without being sick from it (M=2.44, p<.01); that healthy foods can help prevent the spread of AIDS (M=3.54, p<.05); and that there is a cure for AIDS (M=4.39, p<.01).

H^4 Zimbabwean pregnant women who visit Maprofitas will have high scores on the AIDS Knowledge scale.

Lambda correlational analysis and one-way analysis of variance was conducted to examine the relationship between education and AIDS knowledge (Table 12). Mothers who reported that they "sometimes" visit a maprofita believe that AIDS can be spread by having sex with a drug user (M=3.09, p<.01); by infection from a toilet seat (M=4.37, p<.05); by having sex with an AIDS infected man (M=1.38, p<.001); by having sex with an AIDS infected woman (M=1.39, p<.001); and by giving blood (M=3.85, p<.01). Mothers who reported that they "sometimes" visit a maprofita also believe that a mother can give AIDS to her unborn baby (M=1.76, p<.001); that people with AIDS will die from it (M=1.33, p<.001); and that one can spread AIDS without being sick from it (M=2.57, p<.05). Zimbabwean mothers who "often" visit a maprofita believe that one can get AIDS from a prostitute (M=2.33, p<.05) and that AIDS can be spread from having sex with multiple partners (M=2.42, p<.001).

DISCUSSION/IMPLICATIONS

Correlational analyses were conducted to determine associations between the predictor variables of Age, Education, Religion and the dependant variables in the AIDS Knowledge Scale and Total Scores (Table 7).

Education and values and beliefs are primarily reflected in de-institutionalized forms of communication such as word of mouth, storytelling, and kinship bonds (Hill, 1994).

There was little relationship between the three levels of education and the AIDS Knowledge Scale, for nineteen of the twenty-four items were not significantly correlated. The predictor Education Variable was negatively correlated with three items and the total score on the AIDS Knowledge Scale: sharing a needle with a drug user, sharing a glass of water with someone who has AIDS, and giving blood. Less educated mothers had higher levels of AIDS Knowledge for the five items.

The first hypothesis was supported. In Shona culture, there are more gender specific roles than age specific roles (Kurth, 1993). Women are socialized by the women, and men are socialized by the men. This would account for the overall lack of variance.

The second hypothesis was not supported. This reflects different ways of education between Western and Southern African cultures (Cattel, 1993). Western education is more abstract, but it is functional in Southern Africa. For instance, Zimbabwean education focuses on sex role development and prosperity in the land and the people. Children are taught these cultural values from birth onward.

In comparison, the Western world teaches subjects that are more abstract such as math and science, but there is a lack of cohesion between the abstract and the daily practical things in life. Western thinking lacks the applied component that the Zimbabwean has with their education. This shows that religion is more of an interactive educator, as with the traditional healer and maprofita, than institutionalized education.

The third and fourth hypotheses were supported. The religion variables that were found to be significant with AIDS Knowledge were traditional healer and maprofita. Twenty-two of the twenty-four variables were not significant. The predictor religion variable measuring "How Religious" was negatively correlated with two significant items on the AIDS Knowledge Scale. Religious Importance variable has little relationship with the AIDS Knowledge Scale. Twenty-three of the twenty-four items on the scale were not significant.

Research has shown that traditional healers in Zimbabwe are well respected among both the men and the women (Mbizvo, 1996). This study lends itself to support the powerful role of the traditional healer to step outside of the "religious" role and into the place of an educator. For instance, Zimbabwean mothers who were very religious believed that AIDS can be transmitted through a blood transfusion and that one can have AIDS but not look sick. In Shona culture, blood is a very sacred part of the culture and not likely to be changed easily by social environmental factors. The beliefs about the sanctity of blood have been culturally intertwined into the fabric of the mother, starting at the time of early childhood.

This study supports past research findings that the role of traditional healers

continues to play a vital role in the lives of Shona women, despite the impact of Western cultural practices that have moved away from such indigenous ways. It is possible that the traditional healer has decided the culturally relevant beliefs about blood and imparted those ideas to the women well before they contend with knowledge about HIV/AIDS. In other words, their beliefs about blood being sacred and not to be wasted are already in place.

This research supports that these values are not a function of academia, but of the cultural griot/teacher found in the traditional healer. The mothers in this study who visited traditional healers believed that one can have AIDS but not look sick from it. This could come from the belief that the body, if submitted to a traditionally believed spiritual authority, has the ability to heal itself. It is believed that many times people are ill for a reason, but once that reason is revealed to the traditional healer and/or the maprofita then they will help the healing be obtained and symptoms and/or the sickness will disappear. Therefore, there may be other reasons for the significant association between those who visit traditional healers and the belief that one can have AIDS without being sick. It is possible that although it is true that one can have AIDS and not be sick, the Zimbabwean mothers might have come to this conclusion due to the guidance received from traditional healers rather than institutionalized educators. For this reason, the traditional healer variable is strongly associated with AIDS knowledge rather than the education variable, because traditional healers are the cultural disseminators of information.

Conclusion

This research emphasizes the power of de-institutionalized forms of AIDS education. There are so many aspects of Shona tradition and culture that are well guarded. Investigation into private and sacred religiosity variables, such as traditional ways and maprofita, shows that these are the stronger influences on AIDS knowledge. While the religiosity and maprofita variables reflect the most revealing aspects of tradition and culture, they only skim the surface of understanding exactly how AIDS knowledge is disseminated among Zimbabwean pregnant women. The key to effective AIDS intervention in Zimbabwe is to respect the culture by ascribing the major planning and organizational role to traditional leaders within the cultural framework, instead of imposing traditional Western framework.

Table 1. Correlation of Age by AIDS Knowledge Questions (N=206)

	Age
Aids Knowledge Scale	
Spread by sharing a needle with a drug user who has it?	.167*
Condoms help you not get it?	.204**
Sex with more than one partner will help you get it?	.289***

*p<.05 **p<.01 ***p<.001

Table 2. Correlation Analysis of Education by AIDS Knowledge Questions (N=206)

	Education
Aids Knowledge Scale	
Spread by sharing a needle with a drug user who has it?	-.245***
Spread if a man has sex with a woman who has it?	-.194**
Spread if a man has sex with another man who has it?	-.150*
Pregnant woman with it can give it to her unborn child?	-.142*
Prostitutes are likely to get it?	-.215**
Sex with more than one partner will help you get it?	-.187**

*p<.05 **p<.01 ***p<.001

Table 3. Correlational Analysis of Religion by AIDS Knowledge Questions (N=206)

AIDS Knowledge Scale Items	How Religious	Resp. Church	Partner Church	Trad. Ways	Trad. Healer
Get it by kissing on the mouth?	.114	-.041	.134*	.102	.175**
Get it from a toilet seat?	.095	.055	.046	.106	.204**
Spread by sharing a needle with a drug user who has it?	.037	.057	.008	.010	.160*
Having sex with one who has it raises risk?	.099	.213**	-.040	-.057	.109
You can get it by giving blood?	-.038	.077	.013	.045	.181**
Get it from a blood transfusion?	-.184**	-.043	.047	-.059	.134*
Spread by sharing water?	-.023	.062	.009	.094	.141*
Get it by shaking hands?	-.040	.094	.069	.143*	.060
Spread if a man has sex with a woman who has it?	.081	.150*	.135*	.006	.293***
A woman can get it by having sex with a man who has it?	.083	.147*	.205**	.015	.275***
Spread if a man has sex with another man who has it?	.015	.021	.026	.071	.183**
Pregnant woman with it can give it to her unborn child?	-.099	.049	.037	.043	.295***
Condoms help you not get it?	.009	.036	.044	.044	.190**
Healthy foods prevent it?	.005	.084	.045	.068	.155*
Masturbation can cause it?	-.346	.001	.004	.095	.159*
You can always tell if someone has it by looking at them?	-.102	.041	.051	.001	.194**
Prostitutes are likely to get it?	-.338	.060	-.016	-.024	.273***
Sex with more than one partner will help you get it?	-.047	.042	.080	.051	.238***
People with AIDS will die?	-.039	.083	.015	-.027	.296***
There is a cure for AIDS?	-.101	.046	.025	.157**	.094
You can have the AIDS virus without being sick from it?	-.169**	.026	.092	.045	.097
Can have the AIDS virus and spread it without being sick?	-.106	.040	.031	.108	.080

*p<.05 **p<.01 ***p<.001

Table 4. Correlational Analysis of Maprofita by AIDS Knowledge Questions and Total Scores (N=206)

	Maprofita
Aids Knowledge Scale	
Get it by kissing on the mouth?	.188**
Get it from a toilet seat?	.195**
Spread by sharing water?	.143*
Spread if a man has sex with a woman who has it?	.186**
Condoms can help you not get it?	.137*
Prostitutes are likely to get it?	.210**
Sex with more than one partner will help you get it?	.174*
People with AIDS will die?	.197**

*p<.05 **p<.01 ***p<.001

Table 5. One-Way Analysis of Variance of Significant Age and AIDS Knowledge Questions

Variable		Mean	df	F Ratio	F Prob
		Use of Condom			
Age			(2,201)	6.03	.003
	Teenage mothers	2.28			
	Young mothers	2.42			
	Older mothers	4.14			
		Give AIDS to Unborn Baby			
Age			(2,201)	3.39	.036
	Teenage mothers	1.33			
	Young mothers	1.42			
	Older mothers	2.33			
		Sex w/Multiple Partners			
Age			(2,201)	5.14	.006
	Teenage mothers	1.28			
	Young mothers	1.52			
	Older mothers	2.62			

*p<.05 **p<.01 ***p<.001

Table 6. One-Way Analysis of Variance of Significant Education and AIDS Knowledge Questions

Variable	Mean	df	F Ratio	F Prob
Man has Sex w/Infected Woman				
Education		(3,201)	3.29	.022
Less than primary	2.00			
Primary	1.60			
Some Secondary	1.12			
Secondary and beyond	1.10			
Sharing Needle w/Drug User				
Education		(3,201)	4.40	.005
Less than primary	3.25			
Primary	2.79			
Some Secondary	2.00			
Secondary and beyond	1.57			
AIDS from Prostitutes				
Education		(3,201)	3.59	.014
Less than primary	2.50			
Primary	2.74			
Some Secondary	2.09			
Secondary and beyond	1.59			
Sex w/Multiple Partners				
Education		(3,201)	3.30	.021
Less than primary	3.00			
Primary	1.98			
Some Secondary	1.45			
Secondary and beyond	1.40			

*p<.05 **p<.01 ***p<.001

Table 7. Significant Religion and AIDS Knowledge Questions One-Way Analysis of Variance

Variable	Mean	df	F Ratio	F Prob
	Blood Transfusion			
How Religious		(2,201)	3.10	.027
Not	3.57			
Fairly	2.39			
Very	2.10			
	Shaking Hands			
How Religious		(2,201)	4.47	.004
Not	5.19			
Fairly	4.20			
Very	4.76			
	Sex w/AIDS Infected Man			
How Religious		(2,201)	6.57	.000
Not	1.76			
Fairly	1.24			
Very	1.24			

*p<.05 **p<.01 ***p<.001

Table 8. Significant Religion and AIDS Knowledge Questions One-Way Analysis of Variance

Variable	Mean	df	F Ratio	F Prob
	Sex w/Drug User			
Respondent's Church Attendance		(2,201)	3.98	.008
Never	2.12			
Occasionally	2.13			
Weekly	2.63			
	Blood Transfusion			
Respondent's Church Attendance		(2,201)	4.83	.002
Never	4.00			
Occasionally	2.13			
Weekly	2.18			
	Shaking Hands			
Respondent's Church Attendance		(2,201)	5.09	.002
Never	5.25			
Occasionally	3.86			
Weekly	4.58			
	Sex w/AIDS Infected Woman			
Respondent's Church Attendance		(2,201)	8.93	.000
Never	1.75			
Occasionally	1.17			
Weekly	1.17			
	Sex w/AIDS Infected Man			
Respondent's Church Attendance		(2,201)	6.27	.000
Never	1.75			
Occasionally	1.17			
Weekly	1.27			
	AIDS to Unborn Baby			
Respondent's Church Attendance		(2,201)	5.43	.001
Never	2.25			
Occasionally	1.69			
Weekly	1.35			

*p<.05 **p<.01 ***p<.001

Table 9. Significant Religion and AIDS Knowledge Questions One-Way Analysis of Variance

Variable	Mean	df	F Ratio	F Prob
	Sex w/AIDS Infected Man			
Partner's Church Attendance		(2,200)	4.71	.003
Never	1.27			
Occasionally	1.00			
Weekly	1.35			
	Shaking Hands			
Partner's Church Attendance		(2,200)	2.67	.048
Never	4.57			
Occasionally	3.74			
Weekly	4.74			

*p<.05 **p<.01 ***p<.001

Table 10. Significant Religion and AIDS Knowledge Questions One-Way Analysis of Variance

Variable	Mean	df	F Ratio	F Prob
	Giving Blood			
Traditional Healer		(2,201)	2.47	.046
Never	3.26			
Sometimes	3.36			
Often	3.29			
	Blood Transfusion			
Traditional Healer		(2,200)	2.75	.029
Never	2.29			
Sometimes	2.50			
Often	2.43			
	Sex w/AIDS Infected Woman			
Traditional Healer		(2,200)	13.71	.000
Never	1.22			
Sometimes	1.28			
Often	1.00			
	Sex w/AIDS Infected Man			
Traditional Healer		(2,200)	2.47	.046
Never	3.26			
Sometimes	3.36			
Often	3.29			
	Needle Sharing			
Traditional Healer		(2,200)	3.67	.006
Never	1.95			
Sometimes	2.63			
Often	1.57			

*p<.05 **p<.01 ***p<.001

Table 11. Significant Religion and AIDS Knowledge Questions One-Way Analysis of Variance

Variable	Mean	df	F Ratio	F Prob
	Needle Sharing			
Traditional Ways		(1,198)	4.69	.001
Yes	2.25			
No	1.91			
	Sex w/AIDS Infected Man			
Traditional Ways		(1,198)	4.85	.001
Yes	1.40			
No	1.21			
	AIDS to Unborn Baby			
Traditional Ways		(1,198)	2.64	.034
Yes	1.52			
No	1.45			
	Blood Transfusion			
Traditional Ways		(1,198)	5.18	.000
Yes	2.69			
No	2.08			
	Sex w/AIDS Infected Woman			
Traditional Ways		(1,198)	5.99	.000
Yes	1.36			
No	1.00			
	Having AIDS w/out Being Sick			
Traditional Ways		(1,198)	3.38	.010
Yes	2.63			
No	2.51			
	Spread AIDS w/out Being Sick			
Traditional Ways		(1,198)	3.97	.004
Yes	2.26			
No	2.44			

*p<.05 **p<.01 ***p<.001

Table 11 cont. Significant Religion and AIDS Knowledge Questions One-Way Analysis of Variance

Variable	Mean	df	F Ratio	F Prob
	Use of a Condom			
Traditional Ways		(1,198)	3.63	.007
Yes	2.60			
No	2.47			
	Healthy Foods			
Traditional Ways		(1,198)	2.45	.047
Yes	3.49			
No	3.54			
	Sex w/Multiple Partners			
Traditional Ways		(1,198)	9.99	.000
Yes	1.67			
No	1.48			
	Die w/AIDS			
Traditional Ways		(1,198)	5.92	.000
Yes	1.58			
No	1.29			
	Cure for AIDS			
Traditional Ways		(1,198)	3.54	.008
Yes	3.95			
No	4.39			

*p<.05 **p<.01 ***p<.001

Table 12. Significant Religion and AIDS Knowledge Questions One-Way Analysis of Variance

Variable	Mean	df	F Ratio	F Prob
	Sex w/Drug User			
Maprofita		(2,200)	3.45	.009
Never	2.46			
Somewhat	3.09			
Often	1.97			
	Toilet Seat			
Maprofita		(2,201)	2.92	.022
Never	3.86			
Somewhat	4.37			
Often	4.05			
	Sex w/AIDS Infected Man			
Maprofita		(2,200)	4.74	.001
Never	1.36			
Somewhat	1.38			
Often	1.00			
	Sex w/AIDS Infected Woman			
Maprofita		(2,200)	5.75	.000
Never	3.68			
Somewhat	4.37			
Often	4.05			
	Giving Blood			
Maprofita		(2,201)	3.22	.014
Never	3.32			
Somewhat	3.85			
Often	2.44			
	AIDS to Unborn Baby			
Maprofita		(2,200)	5.10	.000
Never	1.40			
Somewhat	1.76			
Often	1.11			

*p<.05 **p<.01 ***p<.001

Table 12 cont. Significant Religion and AIDS Knowledge Questions One-Way Analysis of Variance

Variable	Mean	df	F Ratio	F Prob
	AIDS from Prostitutes			
Maprofita		(2,200)	2.56	.040
Never	1.77			
Somewhat	2.32			
Often	2.33			
	Sex w/Multiple Partners			
Maprofita		(2,200)	5.93	.000
Never	1.54			
Somewhat	1.64			
Often	2.42			
	Die w/AIDS			
Maprofita		(2,200)	4.69	.001
Never	1.27			
Somewhat	1.77			
Often	1.33			
	Spread AIDS w/out Being Sick			
Maprofita		(2,200)	2.91	.022
Never	2.46			
Somewhat	2.57			
Often	1.94			

*p<.05 **p<.01 ***p<.001