Knowledge, Attitudes and Practices of Youth towards HIV/AIDS in Mali, West Africa

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Abstract HIV prevention requires good knowledge, attitudes and practices in order to avoid its spread and multiple re-infections. In this respect, health care givers are required to provide clear and relevant information and instructions on HIV. Youth are particularly vulnerable to HIV/AIDS due to the fact that they are not sufficiently prepared for address problems related to their sexuality and also because they do not have enough real knowledge about HIV and AIDS. The purpose of this study was to investigate the knowledge, attitudes and practices of youth towards HIV/AIDS in Mali. This report is a review of the knowledge, attitudes and practices of participants with regards to HIV/AIDS. A comprehensive literature review was conducted for topics from the following electronic databases: PUBMED, HINARI, GOOGLE and GOOGLE SCHOLAR. This review included published studies which are relevant to the topic in discussion. My search terms included knowledge, attitudes, practices and risk factors for HIV/AIDS in Mali and sub-Saharan Africa. A manual search of journals was also conducted by looking at original articles relevant to the topic under discussion and which were published in English. From this review most of the studies showed that participants heard about HIV/AIDS. Men have better knowledge than women but have negative attitude and risky practice than women. The level of knowledge in general is high but, does not seem to have any practical impact on attitudes towards HIV/AIDS.

Keywords Attitudes; HIV/AIDS; Knowledge; Mali; Practices; Youth

1. Introduction

Acquired Immune Deficiency Syndrome (AIDS) is a well-known major health problem particularly in the developing countries [1]. AIDS causes devastation to human life and destroys communities and takes away their hope [2]. The disease results in impairment of the human immune system and allows the emergence of many kinds of opportunistic infections. The morbid process that leads to AIDS is
HIV infection, and it is the first developmental stage of the disease. HIV attacks certain cells of the immune system and destroys them after entering the human host.

There are several modes of HIV transmission and the most common is through heterosexual and homosexual intercourse. Perinatal transmission from mother to child and transfusion of blood and blood products are also other modes of transmission. One of the common sources of HIV transmission in the developed world is intravenous drug use. Heterosexual intercourse is the most common in sub Saharan Africa. The number of sexual partners increases the risk of infection. Other factors that contribute to the risk of HIV infection include high rates of partner exchange, the presence of anal or genital lesion and the practice of certain types of sexual intercourse [3]. HIV is a global disease and approximately 33 million people worldwide suffer from this disease [4]. Populations at risk of HIV infection and AIDS vary by geographical region. The number of people living with HIV has increased by 27% over the past 10 years, the annual number of new HIV infections has been declining but an increase has occurred because of the reduction in AIDS-related deaths due to the access to antiretroviral therapy [4]. HIV has become a global burden due to inadequate knowledge about the disease. Sexual risk behavior, poverty, weak health care, infrastructure, and political and economic instability are other reasons to the pandemic of the HIV / AIDS [5]. The most affected area is Sub-Saharan Africa and accounts for 68% of the persons living with the disease in the world and it accounts for 76% of all death due to AIDS. The prevalence is much lower in the industrialized world; however vulnerable groups are racial and ethnic minorities, injecting drug users, men who have sex with men, and sex workers [6]. Almost 5 million people live with HIV in Asia and transmission is most common among sex workers, prisoners, people who inject drugs, pretrial detainees and men who have sex with men [7]. In South-east Asia 4.2 million adults and children live with HIV / AIDS but national trends vary in the region. Since 2001 has it been an overall decrease in the annual number of infections but an increase in AIDS death [8].

Of late, many countries around the world have started to realize that the only way to avert the AIDS crisis is to take decisive actions.

2. Background

The Republic of Mali is 1,241,238 square kilometers with a population of more than 14.5 million in 2009. Bamako is its capital. The country's economic structure centers on agriculture and fishing. The country is rich in natural resource; it is the 3th largest producer of gold in Africa continent [9], despite the country has natural resources, half the population lives below the international poverty line [10]. Mali, like other countries in the sub-region is affected by the HIV / AIDS and all social strata are affected by this scourge, especially the young people.

The country is seen as having implemented a well-timed and successful public education campaign. Since 2002, the Supreme National Council for AIDS (HCNLS) has coordinated educational campaigns around sexual activity and condom use to stem HIV infection. Condom use remains low by international standards [11]. The report shows that young people are particularly vulnerable to HIV infection because of their sexual risk behavior, lack of access to HIV information and prevention services, and the lack of knowledge about HIV transmission and prevention methods [12].

Young people are particularly vulnerable to the HIV pandemic. Over half of all new infections worldwide are found in young people between the ages of 15 and 24. Half of all new infections are estimated to be among people under age 25 years and the majority of young people are infected sexually [13]. In the most recent years young people have developed more casual attitudes towards premarital sex, due to the rapid development of the economy, the influence of mass media on the perception of sex, and the degradation of traditional value, in addition to being sexually mature much
earlier than before. If these individuals lack adequate information regarding HIV knowledge and behavior, they might be hit hard by the HIV pandemic.

Even though HIV prevalence in Mali is much lower than it once was, AIDS is still claiming tens of thousands of lives each year. Such a severe epidemic has a considerable social and economic impact. As AIDS usually kills young adults, it depletes a country’s labor force, and weakens educational and health services. Deaths among young adults also leave behind thousands of orphaned children and grandparents, placing an additional burden on the community or the state.

3. Purpose

The purpose of this review was to assess what is already known about HIV/AIDS and to examine existing research on the disease in order to acquire insight into the topic under study.

According to Polit and Hungler [14], a literature review assists researchers in identifying a research problem and developing research questions. It also helps in developing a conceptualized context in which the study will fit. Comparison with similar findings becomes possible; in which case interpretation with previous findings and recommendations become possible.

De Vos [15] points out that a literature review assists researchers to select the appropriate research design and methodology, including the data-collection instruments, for their studies.

4. History of HIV/AIDS

4.1. The Normal Immune System

The theory of a normal immune system has a major role of protecting the body by recognizing invading bacteria and viruses called antigens, and it reacts to them. The system is made up of lymphoid organs and tissues, which includes the following components; bone marrow, thymus gland, lymph nodes, spleen, tonsils, adenoids, appendix, and blood and lymphatic vessels. These components are very essential for the production and development of lymphocytes or white blood cells. The stem cells in the bone marrow produce B cells and T lymphocytes (T-cells). B cells mature in the marrow, but T-cells travel and mature in the thymus gland. B cells recognize specific antigen targets and secrete specific antibodies that coat the antigen by making them more vulnerable to phagocytes or triggering the complement system [16].

T-cells regulate the immune system and kill cells that bear specific target antigens. Each T-cell has a surface marker (for example, CD4, CD8 and CD3) that distinguishes it from other cells. When a specific antigen is present, CD4 cells are helpers that are responsible for activating B cells, killer cells (CD8) and macrophages. Phagocytes include monocytes and macrophages. They are large white blood cells that engulf and digest cells bearing antigenic particles. When the immune system is weakened or destroyed by a virus such as HIV, the body is vulnerable to opportunistic infections [17; 16].

4.2. HIV Life Cycle

The major factor in the life cycle of HIV is that the infected host cells with the virus have a very short lifespan, and in this case HIV continuously uses new host cells to replicate itself. As a result not less than 10 million individual viruses are produced in a day. Within the first 24 hours after infection, the virus attacks or is captured by dendritic cells (a type of phagocyte) in the mucous membranes and skin. Within five days after exposure, the infected cells make their way to lymph nodes and eventually to the peripheral blood where viral replication becomes very rapid.
There are five phases at this stage, and this includes: binding, entry; reverse transcriptase; budding and maturation [18].

4.3. HIV Progression

After transmission of HIV, people do not develop AIDS immediately. There is often a lengthy period that may last from 1 to 10 years from infection with HIV to development of AIDS. The mechanism after infection is that some people may survive a long time while others develop AIDS quickly and soon after die. A few individuals may never develop AIDS disease. The known average time from infection to the development of AIDS is about nine years. This is the incubation period, and such persons may not have any symptoms and, therefore, may not even be aware that they have the infection. This is a major contributor to the spread of HIV. One becomes infectious as soon as he or she becomes infected. The full-blown AIDS patients also remain infectious. The incubation period is much shorter for children since their immune systems are not yet fully developed.

5. HIV/AIDS Transmission

HIV is a worldwide public health problem, and can be transmitted through sexual intercourse, intravenous drug abuse, through occupational accidents and transfusion of blood and blood products, from mother to foetus in the uteri, during labour and during lactation. In Sub-Saharan Africa, Gisselquit and Potterat [19] found that heterosexual transmission accounts for most of adult infections. Over 90% of HIV infections in Africa in 2001 were due to unsafe sex [20]. In Mali, heterosexual transmission is exacerbated by the high prevalence of STIs, the poor status of women, and high-risk sexual practices [21].

In addition, the following factors perpetuate HIV transmission in Mali:

- High poverty levels, that directly or indirectly creates vulnerability of persons to HIV/AIDS, with women forming the majority. The resultant factor is that some of these women often “sell their bodies” in order to survive.

- High mobility is another contributory factor to the pandemic. Specific social groups, like long distance truckers, security personnel and teachers, who are usually transferred from school to school and leave behind their partners, put them at risk.

- Certain beliefs and practices, like having multiple sexual partners, dry sex and the traditional practice of widow/widower cleansing are also facilitating the transmission of the disease.

- Stigma. Stigmatization leads to discrimination, silence, shame, denial and blaming others. Consequently, corrective action, such as diagnosis and/or treatment, is often delayed.

- We cannot under estimate gender issues. These perpetuate the dominance of male interests and lack of self-assertiveness on the part of women in sexual relations. This puts both males and females at risk.

- Alcohol abuse. People tend to forget to use condoms when they are under the influence of alcohol.

6. Risk Factors Associated with HIV/AIDS

There is lack of evidence-based HIV infection prevention and treatment in many developing countries including Mali. This increases the risk that the disease will even spread the more. Another factor
which causes people to not seek medical care and uncontrolled spread of HIV in some countries is that the police harass infected persons (police incarceration). Others include human rights violence and social stigma against people with the disease [22]. There are certain behaviors that can also put individuals at greater risk of being infected with HIV; one of these risk factors is inconsistent condom use [23]. Further, unprotected vaginal or anal sex, having multiple sexual partners, sharing injection equipment and not having enough prevention knowledge and education about the virus are all risk factors [24]. Receiving infected blood transfusions, unsafe injections and medical operations that use unsterile instruments also put people at risk [25]. Insufficient knowledge about the disease is as well also a major risk factor for contracting HIV [26]. Migration is also a significant contributor to HIV infection, as HIV prevalence in neighboring countries such as Côte d’Ivoire and Burkina Faso is substantially higher than in Mali. Political and social troubles or any others conflicts in countries can contribute to increased HIV transmission across borders.

7. HIV Prevention in the World

The biggest goal of HIV prevention is to change individuals risk behavior. In this respect prevention is prime key to combat the spread of HIV/AIDS. Here multilayered social, political and economic efforts are needed to reduce the HIV risk. Influence in attitudes, knowledge and behaviors are important. This involves sexual-health education, promotion of condom use and education of injecting drug users about the dangers of sharing equipment [27].

There has been a high increase in funding from world health organization, United Nations, the World Health Bank and other organizations over the past 15 years to fight HIV/AIDS in developing countries. These resources have primarily been used on prevention, treatment and care. In several of the developing countries there is now possibility to get HIV testing and concealing at no cost [28]. Sexual education has become of a great importance to changing individuals’ attitudes, practices and knowledge about HIV [29]. Research has showed that sex education increases the delay of first sexual activity, higher rates of protected sex and improved attitudes regarding HIV and STIs. In spite of the increased HIV-related knowledge and attitudes, there remains resistance to openly discussing sexuality and sexual health. Cultural and religious differences have a role in explaining this phenomenon [30].

8. Knowledge, Attitudes and Practices (KAP) of HIV Prevention in Different Countries

It is known that preventive knowledge of HIV has increased globally yet less than 50% of people living in the 15 countries with the highest HIV prevalence can correctly answer basic questions regarding HIV and its transmission. Access and information about HIV are different from country to country. This is noted from the fact that the proportion of individuals who used a condom during the last sexual intercourse and the number of sexual partners varies widely globally [31]. It is less than 25% in Southeast Asia of men and women reported using a condom during last higher-risk intercourse [4]. Sexual risk reduction and protective behavior programs have been developed in this respect. These include promotion of condom use and contraception, voluntary counseling and testing, targeted information provision and needle and syringe programs. Many of the programs have led to increased HIV knowledge and practices in the developing countries [32]. KAP of HIV prevention is a problem in both developing and industrialized countries. A study in Denmark showed that Men had more negative attitudes than women towards condoms and condom use, but they had greater knowledge than women about it. Both men and women preferred receiving HIV information from TV or friends instead of their family doctor [33].

A study in India showed that 67% of migrant workers believed that condom use reduced the risk of HIV and STIs. Approximately 50% of the migrants had sex before marriage, and the most common
partner before marriage was sex workers. Of those who had sex before marriage had only 10% used a condom with their causal partners. Major sources of HIV and sex information are movies and television [34].

A study in China showed that almost 50% of the migrant workers thought HIV is curable and the consistent use of condom could prevent HIV transmission. One-third of the migrants also thought that sharing food could transmit the virus. Nearly 75% thought HIV could be transmitted through mosquito bites. Others, about 60% thought HIV could be cured and prevented by regular use of antibiotics. The study also revealed that 50% of the migrants were not willing to work with HIV-infected colleagues. Again less than 20% of the migrants had used a condom at their last sexual intercourse. The condoms were basically used among migrants for preventing pregnancy and not for prevention of HIV and related sexually transmitted infections [35].

In the study [36] in Guinea 88% of the participants heard of HIV and 92% knew they could protect themselves using condoms during sex. Although nearly 70% believed they could be infected of HIV by insect bites.

In Mali, a study showed that 81.1% of students have good knowledge and 9.7% have bad knowledge. Male students had greater knowledge than female respectively 68.4% and 63.4% [37].

9. HIV/AIDS-Related Knowledge among Youth

One of several factors that enable youth to protect themselves from HIV is Knowledge of its transmission. Correct knowledge can also reduce stigma and discrimination against people living with the disease. Youth with comprehensive knowledge are those who understand and agree with prompted questions about HIV. They know that individuals can reduce their chances of contracting HIV by sticking to only one faithful uninfected sex partner and by using condoms. These are those who know that a healthy-looking person can have the AIDS virus, and those who know that HIV cannot be transmitted by mosquito bites or sharing food with a person who has HIV.

Knowledge on HIV/AIDS among young people globally constitutes a major challenge to the control of this scourge. Most people become sexually active at adolescence. It is important know that young people are having sex but lack the proper knowledge to protect themselves. This will help in the fight against HIV/AIDS. Young people are now the epicenter and bear a disproportionate burden of this pandemic [38].

In sub-Saharan Africa and globally, women had lower levels of HIV knowledge. Most youth were aware that being in monogamous relationship with a person of the same sero status is an effective prevention strategy [39].

9.1. Myths and Misconceptions

Some common misconceptions about AIDS disease include the idea that all HIV-infected people appear ill, and the belief that the virus can be transmitted through mosquito bite or some other insect bites. There are other misconceptions that sharing food with someone who is infected, witchcraft and other supernatural means can transmit the disease.

It is useful to identify incorrect beliefs about AIDS in addition to knowing about the effective ways to avoid contracting, in order to eliminate misconceptions.

In sub-Saharan Africa, surveys continue to indicate that young people between 15-24 years harbor serious misconceptions about HIV and how it is transmitted [40]. Many people still believe that
mosquitoes are a vehicle for HIV transmission even though it is a common knowledge that it cannot be transmitted through mosquito bites. This misconception is significant in sub-Saharan Africa where mosquitoes are endemic. It therefore implies a defeatist attitude that regardless of what one does, he or she is subject to HIV infection as a resident of a mosquito infested region. This also poses a compliance challenge for any educational intervention effort targeted at this group of people [41].

9.2. Knowledge of Condom Sources among Youth

There is no dispute about the fact that condom use among young people plays an important role in the prevention of HIV and other sexually transmitted infections and unwanted pregnancies. Knowing a place to secure condoms helps the youth to obtain and use them. This puts the youth in a better position to make informed decisions on issues pertaining to their sexuality.

Although the use of condoms can reduce the risk of sexually transmitted diseases, most sexually active youth in sub-Saharan Africa do not consistently use condoms because they are too expensive for the youth and they do not know where to get them among many other reasons [42].

9.3. Voluntary HIV Counseling and Testing among Youth

It is particularly important to measure testing behavior among the youth. Awareness of HIV status can motivate people to protect themselves against infection and to protect their partners from being infected. They are not only especially vulnerable to infection, but they also may experience barriers to accessing testing services because of their young age.

There must be increased assess of counseling and testing for the youth in the sub-Saharan Africa. Most of them do not have access to sexual health advice, condoms, and forms of contraception, voluntary counseling and testing services for HIV. Reproductive health services are also seldom targeted towards the youth, who therefore tend to avoid them-putting themselves and their sex partners at risk of infection [39].

10. Attitudes Relating to HIV/AIDS

10.1. HIV/AIDS-Related Stigma

Stigma has become a hard factor in our society. This refers to a situation where people living with HIV/AIDS are viewed as shameful and disgrace. It has been perceived to be a result of personal irresponsibility. Such attitudes include marginalizing and excluding individuals. It will fuel prejudice against those living with HIV/AIDS if not counteracted. It will allow societies to excuse themselves from the responsibility of caring for and looking after those who are infected. It must also be noted more importantly that stigma leads to secrecy and denial that hinders people from seeking counseling and testing for HIV, as well as care and support services.

Communities in Sub-Saharan Africa have appeared insensitive to the plight of HIV positive youth. As a result victims chose not to disclose their HIV status for fear of being ostracized by their families and society. Overt discrimination against HIV positive youth could cause dropping out of school for the victims [41]. Efforts have been made in Mali to reduce fear and discrimination towards those living with HIV/AIDS but the stigma has still not completely disappeared from the society.

10.2. Attitudes towards Negotiating Safer Sex

Although condoms have been tried and proven to be the best weapons against HIV infection, studies show limited use of condoms in sub-Saharan Africa [43].
These studies link socio-cultural and religious factors in negotiating for safer sex. Knowledge about HIV transmission and ways to prevent it are less useful in the situation where people feel powerless to negotiate safer sex with their partners. It is prudent to study peoples’ attitudes towards safer sex; if people think a wife is justified in refusing to have sex with her husband when she knows he has a disease that can be transmitted through sexual contact. Again there is need to know whether a woman in the same circumstances is justified in asking her husband or sex partner to use a condom.

11. Practices

11.1. HIV/AIDS-Related Behavior

Research has showed that the age at first coitus is remarkably low. The youth in general indulge in sexual relations for various reasons that include self-gratification and enjoyment.

A study on sexually active adolescents in Nairobi, Kenya have shown that the mean age of males starting sexual activity was 15 years, and 16 for their female counterparts [44].

A survey result in Uganda has revealed low age of initiation of sexual activity among the youth with median age at first sex ranging from 14.6 to 16.8 years. Although males were reported to be having sexual intercourse more frequently than females, this age was lower for females. Further, most of the current sexual partners of the male youth were non-regular, including casual partners, ordinary friends and relatives [45].

Similar findings were reported by a survey in Mali on young people which showed that 65% of young people had their first sexual intercourse before the age of 18, nearly 20% of boys have more than three partners in the twelve months preceding the survey and nearly half of young people do not use condoms with confidence to their partner [37].

11.2. Sexual Behavior Indicators among Youth; Abstinence, Being Faithful, & Condom Use among Youth

The acronym ‘ABC’ represents a prominent message to youth on behaviors to follow to prevent HIV infection: abstinence, be faithful, use condoms. The approach used in Mali has been named the ABC (AFP in French) approach - firstly, encouraging sexual abstinence until marriage; secondly, advising those who are sexually active to be faithful to a single partner or to reduce their number of partners; and finally, especially if you have more than one sexual partner, always use a condom.

It seems that the message about HIV and AIDS has been effectively communicated to a diverse population by Malian government through Supreme National Council for AIDS (HCNLS) [11]. Malian people have themselves to thank, in large part, for the reduction in HIV prevalence. Much of the prevention work that has been done in Mali has occurred at grass-roots level, with a multitude of tiny organizations educating their peers, mainly made up of people who are themselves HIV positive. There was considerable effort made towards breaking down the stigma associated with AIDS, and frank and honest discussion of sexual subjects that had previously been taboo was encouraged. There is a high level of AIDS awareness amongst people generally.

11.3. Sexual Behavioral Change

A change from risky to less risky behavior is necessary and expedient to break the chain of transmission of AIDS among the youth. However risky behavior can only be changed, if we explore the reasons for people taking risks. The trend of AIDS as well as the deteriorating economy in sub-Saharan Africa may be blamed on socio-cultural beliefs and norms [46]. Other factors are lower
school qualifications, school drop outs and upbringing.

It was initially thought that, knowledge about HIV and its mode of transmission was the single factor necessary for initiating positive behavior change. This has been found not to be true. There is evidence that in spite of more adequate knowledge of AIDS, there is continued high risk behavior among the youth of sub-Saharan Africa [47]. It should be noted that research in this area is rendered difficult by the need, often suspect, for self-reporting of sexual behavior. It has been observed that males tend to exaggerate the number of their sexual partners [48].

The reluctance to institute positive behavioral change among the youth of sub-Saharan Africa can be partly explained by the perception among the males in the region that they have an inborn need for sexual activity that cannot be denied [49]. Drinking and drunkenness increase this need and the situation is aggravated by the availability of most commercial sex in bars and hotels. This is particularly true for Eastern and Southern Africa [50]. Furthermore, female sex workers are motivated by the hope of later setting themselves up in business and marrying [49]. Among the youth, sex is seen as a way of cementing relationships [47]. Peer pressure helps to undermine any youth deviating from this view [51]. In addition, relationships among these age groups are characterized by poor communication between the two parties, often leading to sexual violence, which unfortunately is often regarded as a sign of affection [47].

In Mali the level of HIV knowledge is relatively high, but that does not seem to have any impact on sexual behavior [37].

12. Conclusion

From this review, it is clear that HIV is a major challenge of youth globally. Youth are susceptible to the risk of infection with HIV by virtue of the nature of their sexual behavior. However it has been reported that a number of youth in Mali are reluctant to undergo positive behavioral change in spite of extensive information, education and communication campaigns.

In order to realize greater success of HIV/AIDS programmes in Mali it is necessary to study the knowledge, attitudes and practices of youth in the country. This study therefore sets out to identify the knowledge, attitudes and practices of youth in Mali.

References


