

Full Length Research Paper

African and American university students and human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS) transmission kissing perception

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The purpose of this study was to explore the extent to which kissing is associated with the transmission of human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS), based on literature review and respondents' to the questionnaire. The sample used was a diverse one, as participants were Americans and Africans drawn from universities in America, Kenya, South Africa and Tanzania, comprising a total of 424 respondents. Descriptive statistics consisting of frequency, percentage, chi-square and level of probability were used for determining the extent to which participants felt, regarding the association of HIV/AIDS and kissing, as a social and romantic manner reflecting affection and love. The analysis of data showed that university students based in America, South Africa and Tanzania did not think that there was any association between HIV/AIDS and kissing, whereas Kenya university students took the stance, which states that kissing is one of the modes by which HIV transmission occurs. The two positions are but a reflection of what was presented in the literature review. In conclusion, it was argued that the two divergent views call for a revisit, whether it is not in the interest of all concerned to take heed that indeed kissing has the potential of transmitting HIV, and that for this reason, it should be avoided as recommended by the American Center for the Control of Diseases and Prevention.

Key words: Deep kissing, human immunodeficiency virus (HIV) transmission, university students, saliva, divergent views, African and American students.

INTRODUCTION

Since the discovery of human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS) over three decades ago, many questions have been asked for answers, research has been carried out in the quest for a cure, millions of people in every continent have died of AIDS, there are millions today who have attained the status of people living with AIDS (Mwamwenda, 2013a; Wikipedia, 2013; Tshoko, 2011; Naswa and Marfatia, 2010;

Sutton et al., 2011; Terry et al., 2005).

Alternative ways have been identified for prevention and control purposes in the absence of a permanent cure (Mwamwenda, 2013b; Mbonu et al., 2009; Olivera, 2006; Positive.Org, 2013). Moreover, sources of transmission and infections have been identified as: mother to child, blood transfusion, semen, vaginal secretions, sexual intercourse and exchange of needles (New York State, 2013;

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Sith, 2004; Olivera, 2006). The list has been extended, as it is commonly reported that fluids like tears, saliva, kissing, mosquito bites, and urine may carry HIV (Youth Advocacy Group, 2012; Olivera, 2006; Cichocki, 2006; AIDS.Org, 2013; Gourab, 2013; If I Knew, 2012).

Regarding the extended list of sources of transmission, it has been modified by arguing that the quantity is so small that, it is unlikely to lead to the transmission of HIV/AIDS (New York State, 2013). Nevertheless, the speculation on kissing being associated with HIV/AIDS has not been silenced to date; asserting that, while there is a possibility for HIV/AIDS to be transmitted through deep kissing, the probability of this leading to HIV infection is extremely unlikely (New York State, 2013; Positive.Org, 2013; Gourab, 2013). AIDS Organisation (2013) on the other hand, further argues that, if such fluids are contaminated with blood, the chance or risk of contracting HIV/AIDS is a reality that cannot be ignored. "If a person has gum disease and they get blood, semen or vaginal secretions in their mouth, their risk of infection increases" (Youth Advocacy Group, 2012). In this scenario, the gum disease makes it easier for the virus to enter the human bloodstream.

Though transmission through saliva is a rare phenomenon, it has been reported and shown that HIV can be transmitted by human bites and saliva (Gourab, 2013). In 'If I knew' (2012), it is pointed out that, it is possible, but rare to contract HIV through kissing. It is argued that kissing is a safe behaviour and therefore, one cannot get infected by closed mouth kissing, and that there were no known cases of HIV being transmitted thus. Though the saliva of an infected person may contain a trace of HIV, "it will not transmit the virus" (If I knew, 2012). It is, nevertheless, argued that in the event of French kissing involving a partner who has open sore, blood in the mouth, and happens to be HIV positive, it is possible for transmission of the virus to occur. Therefore it is advisable to abstain from French kissing with such a person.

According to Pradeep (2004), a professor of Virology and Head of Microbiology, and In-Charge of HIV/AIDS Reference Centre, New Delhi, India dismissed dry kissing as means of HIV/AIDS transmission, but in the same breath, he argued that "The virus may enter the body through oral sex, and with French kisses in which saliva is exchanged". Cichocki (2006) narrates that kissing on the cheek, even for an HIV/AIDS person is very safe, as one's skin serves as a barrier to transmission. On the other hand, open mouth kissing does pose some risk of transmission, which is rather low to effectively lead to one being infected as such. While this is so, Cichocki (2006) warns that prolonged open-mouth kissing could lead to the damage of the lips or mouth, which may allow the HIV to enter the body through the bloodstream of an uninfected person.

AIDS Organization (2013) presents the argument that, in view of the blood contact that may result from French deep or open-mouth kissing, it is inadvisable to engage in

predisposition behaviour with an HIV infected individual. Similarly, Positive Organisation (1997) identifies four fluids that carry and transmit HIV, namely blood, breast milk, semen, vaginal secretion, but hastens to conclude that saliva is not a transmitter. On second thought, he proceeds to assert that, "Theoretically it is possible to contradict HIV through kissing". This is attributed to a setting in which both partners have cuts and sore in the mouth or bleeding gums. In light of this, it is recommended that it is best to abstain from deep kissing".

On a non-controversial free note, Olivera (2006) made a study of 1,000 senior high school students in Mumbai, India, with the objective of discovering whether they were of the view and knowledge that, it was possible to contract HIV/AIDS by mode of kissing. Most of the participants were highly knowledgeable about the methods of HIV/AIDS transmission as there were 95.8% who knew that HIV/AIDS is transmitted through blood transfusion, 89% were aware that HIV/AIDS is transmitted as a result of engaging in unsafe sex with an HIV/AIDS positive person and 82% were aware that HIV/AIDS is transmitted through infected needles. Despite such high level of HIV/AIDS knowledge, there were as many as 40% that were of the view that kissing would lead to HIV/AIDS transmission (Olivera, 2006).

The argument that kissing may be associated with HIV transmission is supported by two episodes that occurred two decades after the discovery of HIV/AIDS (Health, 1997; Youth advocacy Group, 2012). It was reported that a woman contracted HIV/AIDS from her partner who was HIV/AIDS positive. The American Center for Disease Control and Prevention (CDC) speculated that, it was transmitted through blood more than the saliva per se (Health, 1997). According to researchers, the level of HIV in saliva is too low to bring about HIV infection in an uninfected person. It is further argued that, within one's saliva, there are protein enzymes whose function is to bar the virus from attacking the white blood cells. It has been further reported that all other modes of transmission have been ruled out. As a result, it is concluded that, kissing is what led to the infection (Youth Advocacy Group, 2012; Health, 1997). In view of this, the CDC strongly recommends avoidance of deep kissing with an HIV infected person.

In light of the arguments presented, one seriously wonders whether it can still be denied that, kissing has an extremely low probability of being associated with the transmission. Moreover it also raises an important question to HIV/AIDS researchers, whether when research participants indicate in their questionnaires and interviews that saliva is a mode of transmission, should be scored as a misconception. This is partly what motivated the pursuit of the present investigation. Another case of a similar nature was an HIV infected woman who bit her partner, thus transmitting her HIV to him. By such a bite, the virus entered the bloodstream directly, thus infecting the man with the virus (Youth Advocacy Group, 2012).

METHODOLOGY

The sample of the present investigation comprised university students consisting of American, Kenyan, South African and Tanzanian participants both males and females. The total number of participants added up to 424, with a distribution of 102 Kenyan university students, 164 South African university students, 100 Tanzanian university students and 58 American college students.

Measuring instrument

The questionnaire comprised one question soliciting a response on the basis of three options, namely "Yes, No, Don't Know". All that was expected was to tick the option that was descriptive of what they knew about HIV/AIDS, as it relates to kissing an HIV/AIDS infected person. The question read as follows: "Would one get HIV through kissing a person who is HIV/AIDS Positive?".

Procedure

Since the researcher could not be in all places at the same time, arrangement was made for university lecturers to be responsible for administering the questionnaire to their respective students. This was done after meeting what was expected of them by their institutions in administering such a questionnaire. The response to the questionnaire was preceded by the lecturer concerned explaining to the participants what was expected of them. They were also advised that they had the choice of responding to the questionnaire, if they so wished. In addition to the statement, participants were to fill in their gender and date of birth. For the purpose of confidentiality, participants were not permitted to write their names or institution of affiliation. On completion of the questionnaire, the lecturers collected the papers, which were sent to the researcher in New York for scoring and analysis.

RESULTS

Descriptive statistics in the form of frequency, percentage, chi-square and probability were used as a method of data analysis as displayed in Table 1. The response to the statement for America was 60%, Kenya university 42%, South Africa 81% and Tanzania 61% who did not go along with the statement that, kissing an HIV/AIDS positive person would lead to the transmission of HIV. This held true for America, South Africa and Tanzania, but did not apply to Kenyan respondents who agreed that kissing would lead to the transmission of HIV. Among the four countries, South Africa scored the highest, followed by America and Tanzania whose scores were about at par. In terms of chi-square, the results were as follows; χ^2 (2df, N56) = 19.5, $p < 0.001$ America; χ^2 (2df, N100) = 32, $p < 0.001$ Kenya university; χ^2 (2df, N162) = 173, $p < 0.001$ South Africa; χ^2 (2df, N98) = 43, $p < 0.001$ Tanzania. All the values for the chi-square were statistically significant in favour of those who rejected the question that HIV would be transmitted through kissing, with the exception of Kenya where the result were in the opposite direction, as more respondents indicated that indeed, one would become infected as a result of exchange of kisses. In summary, the analysis of data showed

showed that African and American university students with the exception of Kenya rejected the notion that an individual would contract HIV/AIDS on the basis of kissing. Kenya African University students went along with the question that kissing can lead to the transmission of the virus. In terms of percentage points, South Africa had the highest score followed by both America and Tanzania who performed equally at the middle level, with South Africa being at the top and Kenya the fourth and last position.

DISCUSSION

In view of the controversial nature of HIV/AIDS, people all over the world have had interpretations and beliefs that are at variance. Apart from the commonly held and accepted various modes of transmission and infection such as: blood transfusion, sharing of needles, sexual intercourse, mother to child infection, the list has been extended to saliva through exchange of social and romantic kisses. The question of HIV being transmitted through kissing has been rather controversial as different views have been divergent rather than convergent. It was with this background that this investigation was undertaken. The sample comprised 424 African and American university students drawn from America, Kenya, South Africa and Tanzania. Specifically, the investigation sought to solicit from respondents their views as to whether they subscribe to the notion that kissing would be considered to be one of the modes by which HIV/AIDS is transmitted.

As narrated in the analysis of data, the outcomes showed that there were those who went along with the question, and those who rejected the notion that HIV would be transmitted through kissing. However, the differing respondents were not of the same magnitude numerically. Of the four participating countries, Kenya registered her position of accepting that indeed kissing was a source of HIV/AIDS transmission. America, South Africa and Tanzania rejected the notion that HIV/AIDS is transmitted through kissing. According to the scoring criterion, those who rejected the statement were supposed to be correct, notwithstanding the fact that, the review of literature on HIV/AIDS is divided. It therefore raises an important question regarding the scoring of questionnaires, where technically speaking both answers are actually correct based on empirical evidence.

Another issue that arises from this investigation is the size of respondents from the four countries and their responses. Other than South Africa which had a score of 80% correct responses; the remaining countries scored rather low, thus showing that the number of those who had misconception was rather substantial to be a matter of concern. Indicating, as it did, that the effect of public education on HIV/AIDS has not gone far enough to spread the needed message to the millions of people the world over who are faced with the threat of contracting the disease in their lifetime.

Table 1. Frequency percentage Chi-Square and probability for the question: Would one get HIV through kissing a person who is HIV/AIDS positive? N 424

Country	Frequency	%	χ^2	P
America N=58	35	60	19.5	0.001
Kenya N=102	43	42	32	0.001
South Africa N=164	133	81	173	0.001
Tanzania N=100	61	61	43	0.001

Theoretically, as well as in comparison and contrast, the findings of the present investigation are in alignment with what other researchers have reported. For example, Olivera (2006) in his study among senior high school students in Mumbai, India reported that there were as many as 40% of respondents who believed that kissing was indeed one way one would be infected with HIV/AIDS. Sith (2004), a professor of virology and in-charge of the Centre for HIV/AIDS advanced the argument that deep kissing can lead to transmission of HIV. The same view is held by the American Center for the Control and Prevention of Diseases. Such view gained support from the Kenyan participants who held the view that indeed HIV can be transmitted by kissing. There are other researchers who are considered to be correct, who vehemently have rejected the notion that kissing is a viable mode of HIV/AIDS transmission (Youth Advocacy Group, 2012; Positive.Org, 1997; AIDS, 2013). These are in convergence with respondents from America, South Africa and Tanzania who share such view, and considered politically correct by the majority of people, though this does not resolve the existing controversy on HIV/AIDS in terms of its impact on the lives of millions of people, particularly in Sub-Saharan Africa which leads the whole world in the number of people who have died because of HIV/AIDS, as well as the set of millions of those who are living with AIDS (Wikipedia, 2013).

Conclusion

The results of the present investigation are that, respondents showed two divergent views regarding the association between HIV transmission and kissing. The majority were of the view that there is no relationship between kissing and the transmission of HIV. The other set of respondents, which would constitute the minority has taken the stance that, there is a relationship between the two variables. Such outcomes are a reflection of what has been presented in the literature review emanating from those who are considered experts in the field of HIV/AIDS science. That alone constitutes a paradox in the debate about the relationship between kissing and HIV transmission. Such ambiguity does not contribute meaningfully to the cause of combating HIV/AIDS in the best possible way. Even if the argument that there is a

relationship is accepted; it can be argued that if indeed there is a relationship, then those engaged in kissing, should avoid people who are HIV positive.

This is not sound admonition, given that there are people who are HIV positive, and yet they are not even aware of this. So, how does one relate to such a situation? There are those who are aware that they are HIV positive, and yet they keep it a secret for fear of the HIV/AIDS stigma in society. The argument that it is extremely unlikely to contract HIV, because the quantity of HIV contained in their saliva is too small to bring about HIV transmission is not a sound one either. Who is there to monitor and control the amount that will be secreted or released? No one in his or her sound mind would want to risk the safety for life because of a romantic or social kiss. Therefore, it is important take heed that it is unsafe to engage in kissing for health reasons.

Conflict of Interests

The author(s) have not declared any conflict of interests.

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