

HIV/AIDS Awareness/Knowledge and Rural Secondary School students in South Africa

Tuntufye Selemani Mwamwenda

Administration, University of Mpumalanga, Mbombela Campus, Nelspruit, South Africa
tswamwenda@yahoo.com

Abstract: In many parts the world over, rural education is understood from a deficit perspective. Therefore, the principal objective of this investigation was to assess and examine rural secondary school students' HIV/AIDS awareness and knowledge. The sample of the study comprised 145 respondents in grades 10-12 enrolled in mathematics and science as their focus in a rural secondary school in the Eastern Cape Province, South Africa. Their age ranged from to. On the basis of gender, there were males and females. The method used for the analysis of data comprised descriptive statistics, namely, means, frequency, percentage, chi-square and level of probability. While the overall scores were satisfactory, respondents scored over 80 percent in only four questions/statements out of 15. This was not sufficient for society to be satisfied that youths have sufficient knowledge and awareness to guard against the rapid spread of HIV/AIDS transmission. It is imperative therefore that, rural secondary school students be provided with more HIV/AIDS public education that will enable youths to make appropriate decisions, as they encounter various experiences that predispose them to contract HIV/AIDS.

[Tuntufye Selemani Mwamwenda. **HIV/AIDS Awareness/Knowledge and Rural Secondary School students in South Africa.** *Life Sci J* 2017;14(11):1-6]. ISSN: 1097-8135 (Print) / ISSN: 2372-613X (Online). <http://www.lifesciencesite.com>. 1. doi:[10.7537/marslsj141117.01](https://doi.org/10.7537/marslsj141117.01).

Keywords: protection against HIV/AIDS; rural school and HIV/AIDS; rural versus urban environment; secondary school students.

1. Introduction

In many parts the world over, rural education is understood from a deficit perspective. In view of this, Barter (2008) proposes that there be a dialogue that would of necessity lead to better understanding regarding rural school and rural education, rural communities and rural learning ecologies. Such conceptualisation could be applied to HIV/AIDS awareness/knowledge and rural secondary school students.

Therefore, the principal objective of this investigation was to assess and examine rural secondary school students' HIV/AIDS awareness and knowledge. Such approach was used in light of the fact that the majority of South Africans live in rural areas, and yet most HIV/AIDS based investigations have placed their focus on urban population (Mwamwenda, 2013a, 2013b). By placing our focus on urban population, we are directly paying little attention to those who live beyond the confines of urbanisation, thus placing rural dwellers at disadvantage in various social, health, economic and education dimensions. This then served as motivating factor for undertaking the present investigation, based on rural secondary school students in Mthatha, Eastern Cape Province, South Africa.

It can be reasonably argued that, adolescents in South Africa have a great need for sexual and reproductive health services (Fronhlich, Mkhize, Dellar, Maklase, Montague and Karim, 2014). As a

result, it is proposed that there be integration of such services in the school curriculum, to bring under control the current barriers to access. To this end, a special model was developed involving 14 rural high schools in Vulindlela in Kwa Zulu-Natal, South Africa. There were 8, 867 high school participants selected from 14 schools. Community members were readily receptive to such health services in view of the HIV/AIDS high level prevalence, as well as teenage pregnancy in the community (Fronhlich et al. 2014).

In passing, it is relevant and important to point out that, from a global and South African perspective, Vulindlela is referred to as the epicentre of the HIV/AIDS pandemic. Globally there is a decrease in HIV prevalence, whereas in this particular rural area, there is a high rate of infection among girls, which is fuelling epidemic in the community. Hence the need for HIV prevention intervention, as a device for an efficient mode of HIV/AIDS transmission.

Participants identified a number of major barriers to sexual and reproductive health services (SRHS). These were as follows: 1) young people did not feel at ease interacting with adults; 2) there were no health service clinics focusing on adolescents; 3) cost implication in the form of paying for travel to the clinics; 4) the opening of school and Clinics led to a conflict in timing; 5) there was lack of confidentiality, particularly for those tested HIV positive. Similarly, the community was concerned about intergenerational relationships; teenage pregnancy and HIV in

adolescents; community was supportive of enhancing access to contraception and provision of STI treatment. Overall, the programme was successful in achieving some of the intended objectives.

In Tanzania, Masanya and Msuya (2014) carried out an investigation with the objective of examining parents' feelings and beliefs regarding sex education and find out whether parents were disposed to have sex education, as a means of controlling and halting the wild spread of HIV/AIDS infection. All participants were selected from rural areas in terms of communities and school which included both rural primary and secondary schools. The sample comprised 210 in total, involving 150 school children and 60 parents. The results of data analysis was as follows: 1) parents and religious leaders were the most important people for sex education; 2) open air campaigns; 3) politicians, other adults, the media and teachers. In conclusion, it was observed that, there was urgent need for raising the level of HIV awareness among both rural primary and secondary school pupils.

Sex education can be elaborated as entailing: acquiring information and forming attitudes and beliefs regarding sex, sexual identity, relationships and intimacy. The purpose of the advocacy of sex education stems from the premise that young people are vulnerable to HIV/AIDS and STI, and for that reason they need protection. As a result of provision of such education, people will acquire knowledge, skills, values and attitudes that will enable youth to make appropriate decision, as they encounter pro-HIV/AIDS factors such as health, social and personal development. Moreover, it is argued that sex education increases knowledge about HIV/AIDS, changes attitudes so far as sexual risk behaviours, delay the onset of sexual intercourse and increase the need for safer sex are concerned.

In terms of age, the older participants performed better than the younger ones, showing older ones were better informed about HIV/AIDS. Based on gender 57.4 females scored above 80% compared to 34.2% males who scored above 80%. This was applicable to youth, whereas with adults, there was no gender difference. Education-wise, those with higher level of education performed better than those with less education. Parents' awareness: religious leaders scored 100 per cent; government employees scored 94 per cent, while business persons had a score of 83%.

In conclusion, it was observed that, there is urgent need for raising the level of HIV awareness among youths. According to Alene, Wheeler and Grosskurth's (2011) investigation of 260 rural secondary school students in Western Ethiopia, it was observed that in general, their HIV/AIDS awareness was high. On the other hand, in specific aspects of HIV/AIDS performance was not satisfactory, as

shown in 44 and 41 per cent scores for boys and girls respectively in their correct knowledge of the virus, as it relates to its transmission.

In general, more investigation on HIV/AIDS awareness in rural schools have been carried out in Nigeria than is the case in other African countries. For example, Kayode and Ogu (2011) assessed level of HIV/AIDS awareness based on participants' environment (urban and rural). There were 500 participants selected from three rural and another three from urban schools. The results showed that both rural and urban students were aware of HIV/AIDS. While this was so, urban participants had an advantage over rural counterparts in so far as they had access to more HIV/AIDS sources of information than was the case with their counterparts. It was also reported that, on the basis of gender, urban females were more knowledgeable than their male counterparts on prevention measures of HIV/AIDS. This also applied to both rural males and females who knew less.

In another study in Gombe, Nigeria, Danjin and Onajole (2009), based on a sample of 395 participants, examined HIV/AIDS risk behavioural tendencies among secondary school students. Most of them, 98.4 per cent, had heard of HIV/AIDS; 88 per cent had knowledge of condom use, though this had very little impact on sex related risky behaviour prevalence in their midst. This was reflected in: multiple sex partners, multiple life-time sex partners, low rate use of condom, sex in exchange for money or favour, early sexual debut below the age of 13 years; sex with prostitutes and diagnosed with STI (Danjin and Onajole, 2009).

The results further showed that 39.5 knew that there was no cure for HIV/AIDS; 87.5 per cent were urban participants. On the other hand, there was no statistically significant difference between urban and rural students. Transmission through blood transfusion 71.9 per cent; transmission through unsafe sex 62 per cent. There were a few participants who attributed HIV/AIDS to witchcraft and mosquito bites; 59.3 claimed that they were invulnerable to HIV/AIDS transmission; 30.8 per cent conceded being at risk of HIV/AIDS infection and the rest had no answer one way or other.

Gender variation in sero-status: There was tendency for female reporting negative HIV status (54.6) than their counterparts (50.2). HIV status self-reporting was higher among rural respondents with 14.6 per cent reporting positive compared to 7.6 per cent positive for urban respondents which was statistically significant at $p < 0.05$.

Though in this investigation, there was no difference between urban and rural respondents in previous investigation, the level of HIV/AIDS level of

awareness was significantly higher than was the case with rural respondents (Danjin and Onajole, 2009).

In Edo Nigeria, Henrietta (2013) aimed at the assessment of adolescents' HIV/AIDS awareness on the basis of urban and rural environment, as well as gender and chronological age. Respondents comprised 126 grades 10-12. The results showed no difference on the basis of urban versus rural; age and gender. Comparatively, 39.2% rural adolescents had some HIV/AIDS knowledge compared to 60.8% urban respondents. Similarly, urban adolescents compared to rural adolescents had more knowledge about HIV/AIDS pandemic. Gender-wise, 52.7% females compared to 47.3% males had more HIV/AIDS knowledge.

In a rather innovative approach, Van der Maas and Otte (2009) of Nigeria carried out an assessment of how peer HIV/AIDS is effective as regards awareness based on knowledge, misconceptions and behaviour of secondary school students in rural Nigeria. The sample consisted of 250 respondents divided into two groups, namely, those taught by peers, as well as those who were taught by non-peers. It was observed that, there was increased knowledge and decreased misconceptions among the peer educated sample in comparison to non-peer educated respondents. Therefore, it was concluded that peer-education in rural areas in Nigeria was effective, so far as HIV/AIDS prevention, knowledge and behaviour can be positively influenced.

In Gujarat, India, Singh and Jain (2009) investigated HIV/AIDS awareness, knowledge and prevention among rural school students. The study fell under the Gujarat state known as Intensive Rural AIDS Awareness Programme. The sample was made up of 755 (559 boys and 196 girls) participants who were in grades 9-11 selected from 29 rural schools. The results of the investigation was as follows:

1 35% of the participants knew what HIV/AIDS stood for;

2 50% thought both genders were vulnerable to HIV/AIDS;

3 35% were of the view that HIV/AIDS are synonymous.

Regarding HIV/AIDS transmission:

1 91% knew about the vertical transmission, which means the mother passes on HIV/AIDS to the baby during the process of labour.

2 94% said it could be transmitted through blood of an infected person;

3 91.7% said it could be transmitted through needles/syringes;

4.73% held the view that it could be spread through unsafe sex;

5 25% believed that mosquito bites can lead to HIV/AIDS transmission;

6 majority of participants expressed that HIV/AIDS has no known cure.

A similar investigation was undertaken with the objective of assessing the awareness and attitudes of rural young men and women regarding HIV/AIDS (Malleshappa, Krishne and Shashikuont, 2012). The sample consisted of 850 young men and women aged 18-30 years old. These were selected from 14 rural areas.

Rather surprisingly, 18% of the female and 7% male participants indicated that they had never heard of HI/AIDS in their life. Women scored less than men on HIV/AIDS awareness. It was further noted that the level of literacy of men and women was correlated to how knowledgeable they were on HIV/AIDS, clearly indicating literate participants did better than those who were less literate. On the basis of education level, participants who had less than secondary level of education did not think positively about people living with HIV/AIDS. Misconceptions about HIV/AIDS can be brought under control by information, education and communication (Malleshappa et al. 2012). In conclusion, the authors stated that there was "need for innovative, comprehensive scientific information... to impart better knowledge and understanding on HIV/AIDS" (Malleshappa et al., 2012).

2. Materials and Methods

2.1 Sample

The sample of the study comprised 145 (83 girls and 62 boys) rural secondary school students in grades 10-12 outside the Municipality of Mthatha, in Eastern Cape, South Africa. Their age ranged from 15 to 25 years and a mean of 19.3 years.

2.2 Questionnaire

The respondents were administered an HIV/AIDS questionnaire of 15 statements/questions to which they were asked to tick the most correct response on the basis of the three options provided, which were "Yes", "No" "Do not know". The questionnaire was administered by one of the teachers in Science and Mathematics. All protocol observed, necessary permission was sought and granted from the senior management of the School. Similar consent was solicited from participants.

For confidentiality purpose, respondents were asked not to write their names on the questionnaire. For biographical information, they were requested to indicate their date of birth and gender in the space provided on the questionnaire.

3. Results

Table 1 shows the results based on: frequency, percentage, chi-square and level of probability. The response to whether a person would contract HI/AIDS, as a result of drinking water from the same glass with

an HIV/AIDS infected person was rejected by 70% of the respondents. According to the χ^2_{test} (1df, N144)=21.5, this was statistically significant at $p < 0.001$. When asked whether kissing an infected person would lead to contracting HIV/AIDS, 75% rejected this hypothesis with χ^2 (1df, N144)=34.3, was also

significant at $p < 0.001$. Whether one would be HIV/AIDS infected, as a result of taking care of an HIV/AIDS person was also rejected by 67%, as a source of transmission. This was statistically significant $p < 0.05$.

Table 1: Participants' Frequency, Percentage, Chi-squares and Probability, N= 145

No.	Statement				
		Freq.	%	χ^2	P
1	Drinking from the same cup used by AIDS person	101	70	21.5	0.001
2	Kissing a person who has AIDS	109	75	34.3	0.001
3	Taking care of person who has AIDS	79	54	1.0	ns
4	Receiving blood from a person who has AIDS	69	48	0.44	ns
5	Having sex with a person who has AIDS	70	48	0.3	ns
6	AIDS is God's punishment for sexual sin	93	64	17.6	0.001
7	Africans have a cure for AIDS	97	67	16.6	0.001
8	Research has finally found the cure for AIDS	84	58	3.6	0.05
9	There is no way I will be infected with AIDS	26	20	91.7	0.001
10	Would you sit next to a person who has AIDS?	125	86	37	0.001
11	People who have AIDS are responsible for it	45	30	19.6	0.001
12	AIDS children should attend school with others	134	92	106.9	0.001
13	Would you accept being tested for AIDS?	126	87	35	0.001
14	Are you careful in your relationship with boys/girls to avoid getting AIDS?	121	83	66.6	0.001
15	There is no such thing as AIDS	96	66	16	0.001

As regards HIV/AIDS being God's punishment was rejected by 64% of the respondents, which is statistically significant, χ^2 (1df, N144)=17.6, $p < 0.001$. Whether Africans have a cure for AIDS was rejected by 67%. Calculation of χ^2 (1df, N144)=16.6, $p < 0.001$ was significant.

Participants (58%) did not agree with the statement that researchers have identified the cure for HIV/AIDS, which was statistically significant at $p < 0.05$. Whether participants were vulnerable to being HIV/AIDS infected was rejected by 80% of the respondents, which was incorrect. Whether they would agree to sit next to an HIV/AIDS infected person, 30% respondents did not think there was a problem with such behaviour. The majority had a problem with such behaviour. In response to the statement that HIV/AIDS persons should be held responsible for contracting such disease, the majority took the position that infected persons should not be blamed for their disease, which was not correct. If not who should be blamed? The response was statistically significant at χ^2 (1df, N144)=19.6, $p < 0.001$. In terms of being in close proximity by sitting next to an HIV/AIDS person, 86% of the respondents had no problem with the statement and was statistically significant at $p < 0.001$.

Whether HIV/AIDS infected children should attend school with uninfected children, the majority of participants (92%) thought that was the right thing to do: χ^2 (1df, N144)=101.9, $p < 0.001$. Whether participants would agree to being tested for HIV/AIDS, the majority of participants (87%) said they would. This was statistically significant: χ^2 (1df, N144)=35, $p < 0.001$. In response to whether participants were careful in their relationships with members of the opposite sex, for the purpose of guarding against being HIV/AIDS infected, most of them (83%) agreed with the statement significantly: χ^2 (1df, N144)=66.6, $p < 0.001$. The statement that there was no such thing as AIDS was rejected by 66% of the respondents, and was significant: χ^2 (1df, N144) = 16, $p < 0.001$.

4. Discussion

The principal objective of this investigation was to assess and examine rural secondary school students' HIV/AIDS awareness and knowledge. Such approach was used in light of the fact that, the majority of South Africans live in rural areas, and yet most HIV/AIDS based investigations have placed their focus on urban population. By placing our focus on urban population, we are directly paying little attention to those who live beyond the confines of urbanisation. This then served

as motivating factor for undertaking the present investigation, based on rural secondary school students in Mthatha, Eastern Cape Province, South Africa.

Based on other research findings of HIV/AIDS awareness and knowledge of rural secondary school students in African and Asian countries, there is repeated call for improvement of HIV/AIDS awareness and knowledge, as a means of combating the rapid spread of HIV/AIDS pandemic. For example, in South Africa, there is a great need for sexual and reproductive health services for which it is proposed that, there be integration of such services in school curriculum to bring under control of the current barriers to access such services (Fronhlich et al., 2014). In Ethiopia it was observed that in general, rural students' HIV/AIDS awareness was high, though in specific aspects of HIV/AIDS performance was not satisfactory, as shown in 44% and 41% scores for boys and girls respectively, in their correct knowledge as it relates to HIV/AIDS transmission (Alene et al., 2011).

In Tanzania, it was observed that, there is urgent need for raising the level of HIV awareness among rural youth, recommending the need for sex education, which will enable rural school children to acquire knowledge, skills, values and attitudes that will enable them to make appropriate decisions, as they encounter pro-HIV/AIDS factors (Masanja and Msuya, 2014). According to Malleshappa et al., (2012) in India, there is "need for innovative, comprehensive, scientific information... to impart better knowledge and understanding HIV/AIDS"

The above arguments and calls lend support for pursuing the current investigation in the quest for a resolution to the existing HIV/AIDS, responsible for people who have lost their lives and others living with HIV/AIDS in millions. In the absence of a cure of HIV/AIDS, awareness and knowledge remain the alternate hope for mankind. Provision of HI/AIDS public education enables young people acquire knowledge, skills, values and attitudes that will enable youth to make appropriate decisions, as they encounter the reality of HIV/AIDS in health, social and personal development (Masanja and Msuya, 2014). It is relevant to note that, the findings of the present study scores obtained by participants are leaning more towards the mean than towards above the mean or outstanding. As such they confirm the conclusions observed by other researchers as reported earlier on. And therefore the findings thereof are confirmation of such findings.

A few studies have made comparisons between urban and rural HIV/AIDS awareness with the purpose of identifying which one of the sets of participants would perform better than the other. Kayode and Ogu (2011) in Nigeria selected three rural and another three urban secondary schools to assess their HIV/AIDS

awareness and knowledge. The results showed that urban participants performed better than rural males and females who were less knowledgeable. Moreover, urban respondents had an advantage over rural participants, inasmuch as they had access to more HIV/AIDS sources of information than was the case with their rural counterparts (Kayode and Ogu, 2011).

However, such findings were not observed among other Nigerians, where urban and rural youths there was no difference of statistical significance (Danjin and Onajola, 2009). The authors proceed to report that previous studies have reported that urban HIV/AIDS level of awareness was significantly higher than was the case with rural respondents. According to Henrietta (2013) investigation of urban and rural adolescents in Edo, Nigeria, showed that urban adolescents compared to those in rural area had more knowledge about HIV/AIDS pandemic.

Though the current investigation did not examine both rural and urban participants, the preceding investigations are relevant, since they underscore the importance of investigation based on rural participants on the underlying assumption that, they are environmentally disadvantaged. As such, they may not be that advantaged, as their counterparts in the urban area. Hence the need for pursuing remedial programme to address the existing knowledge and awareness deficit. This line of reasoning is rather confirmed by the findings of the present investigation. Participants were successful in scoring above 80 per cent in only four questions/statements out of 15 they responded to. These and their scores were as follows: 1) sitting next to an HIV/AIDS person 86%; 2) HIV/AIDS children attend school with uninfected children 87% 3) being tested for HIV/AIDS 87%; and 4) being careful in relationship with members of the other gender to guard against HIV/AIDS transmission 83%. Such scores are considered adequate to guard against contracting HIV/AIDS. This translates that the majority of participants did not meet this expectation. Among other factors, this may be attributed to their rural environment (Henrietta, 2013; Alene et al., 2011; Kayode and Ogu, 2011).

Conclusion

The aim of this investigation was to assess the HIV/AIDS awareness and knowledge of rural secondary school students in South Africa. The underlying objective of the study was motivated by the fact that the majority of studies on HIV/AIDS awareness have had little attention paid to rural schools, thus placing them at a disadvantage in health, social development, economic and education perspectives.

The results showed the performance of participants was of a satisfactory nature. Those who

scored higher which is above 80 per cent did so only in four questions/statements out of 15. This was not sufficient for society to be satisfied that the youths have sufficient knowledge and awareness to guard against the rapid spread of HIV/AIDS transmission. It is imperative therefore, that rural secondary school students be provided with more HIV/AIDS public education that will enable them to make appropriate decisions, as they encounter various experiences that predispose them to contract HIV/AIDS.

Corresponding Author:

Prof Tuntufye S Mwamwenda, 50 Holzner Road, Pinetown 3610, South Africa.

E-Mail: tswamwenda@yahoo.com

References

1. Alene GD, Wheeler JG, Grosskurth GH. Adolescent reproductive health and awareness of HIV among rural high school students, North Western Ethiopia. *AIDS Care* 2011; 16(1): 57-68.
2. Barter B. Rural education: Learning to be rural teachers. *Journal of Workplace Learning* 2008; 20(7): 468-479.
3. Danjin M, Onajela A. HIV/AIDS risk behavioural tendencies among secondary school students in Gomber, Nigeria. *The Internet Journal of Health* 2009; 11(1).
4. Fronhlich JA, Mkhize N, Dallar RC, Maklase G, Montague CT, Karim QA. Meeting the sexual and reproductive health needs of high school students in South Africa: Experiences from rural Kwa Zulu-Natal. *South African Medical Journal* 2014; 104(10): 687-690.
5. Henrietta AI. HIV/AIDS level of urban and rural adolescents in EDO State Nigeria: Implementation for counselling. *International Society for Development and Sustainability* 2013; 2(2): 1224-1228.
6. Kayode A, Ogu MN. School location and secondary school students awareness of HIV/AIDS in Imo State of Nigeria. *Journal of Educational research* 2011; 1(2).
7. Malleshappa K, Shashikumar K. Awareness and attitudes of youth toward HIV/AIDS in rural Southern India. *Biomedical Research* 2012; 23(2): 241-246.
8. Masanja, MM and Msuya, JM 2014. Social changes imposed by HIV/AIDS in rural areas: Empirical evidence of sex education in Maswa District, Tanzania. *Asian Journal of Applied Science and Engineering* 2014; 3(8): 49-60.
9. Mwamwenda TS. HIV/AIDS knowledge of high school adolescents in Kenya. *Journal of AIDS and HIV Research* 2013a; 5(12):472-478.
10. Mwamwenda TS. African university students' HIV/AIDS and knowledge transfer. *Journal of AIDS and HIV Research* 2013b; 5(9): 341-346.
11. Singh A, Jain S. Awareness of HIV/AIDS among school adolescents in Banaskantate District of Gujarat. *Health and Population Perspectives and Issues* 2009; 32(2): 59-65.
12. Van der Maas F, Otte WM. Evaluation of HIV/AIDS secondary school peer education in rural Nigeria. *Health Education research* 2009; 24(4): 547-557.

10/15/2017