

AN INVESTIGATION OF SOME PREDICTING FACTORS OF HIV/AIDS KNOWLEDGE AMONG ADOLESCENTS WITH HEARING IMPAIRMENT IN SOUTH WEST, NIGERIA

ADENIYI, Samuel Olufemi, Ph.D.

Department of Educational Foundations,

University of Lagos, Lagos

soadeniyi@unilag.edu.ng

and

OLUFEMI-ADENIYI, Olubukola, A

Department of Special Education,

University of Ibadan, Ibadan

ABSTRACT

HIV/AIDS has caused serious health challenges and concerns for close to four decades globally. The negative and alarming impact of this disease is the rate of incidence, prevalence and morbidity among young adults and adults generally. Despite the recorded reduction as a result of awareness among the general population, few achievements have been recorded among adolescents with hearing impairment as regards the awareness, knowledge and developmental skills that could aid in mitigating the exploit of the disease. This study, therefore, investigated some predictors of HIV/AIDS knowledge among adolescents with hearing impairment in southwestern, Nigeria. The study adopted a survey research design of the ex-post facto type. Multi-stage sampling technique was used to select 450 adolescents with hearing impairment in different locations of south west, Nigeria. HIV/AID predictive behaviour inventory consisting of self-esteem ($r = 0.80$), Goal-setting ($r = 0.62$) Decision-making ($r = 0.60$) and AIDs knowledge ($r = 0.62$) scales was used. Three research questions were asked and answered. Data collected were analysed using Pearson Product Moment Correlation and Multiple regression. Result indicated significant relationship among independent variables and dependent variable like self-esteem, goal-setting, decision-making, age, gender, onset of loss, degree of loss and HIV/AID knowledge of adolescents with hearing impairment. All independent variables jointly predicted HIV/AIDS knowledge of the participants while decision-making was the highest contribution. It, therefore, revealed that some intra-personal factors could contribute to HIV/AIDS knowledge among the participants. Hence, it was recommended that adolescents with hearing impairment should be helped to develop developmental skills that will help them cope with life challenges.

Key words: HIV/AIDS knowledge, Self-esteem, Goal-setting, Decision-making, Adolescents with hearing impairment.

Introduction

Children and adolescents with disabilities constitute a significant proportion of every population, especially, in low-income countries (UNICEF, 2012). Estimate in proportion revealed that 80% of young people and children living with disabilities are in the poorest countries of the world (UNDP, 2006). Despite the global decline in poverty trend, there is contrast report in sub-Saharan Africa as more than 40% of the population still live in poverty in 2015 and people with disabilities accounting for a large proportion (UN, 2015). Nigeria is one of the poorest countries with high proportion of people living with disabilities, namely, hearing impairment, visual impairment, learning disabilities, mental retardation, physical disabilities and hosts of others.

It is worthy to note that the large proportion of young adults and children that are affected by disabilities are in the cluster of adolescents worldwide. The adolescents' stage is a transition from childhood to adulthood and it is normally accompanied with a lot of developmental challenges. These developmental challenges are universal characteristics associated with all categories of adolescents with or without disabilities (of which adolescents with hearing impairment constitute a significant population) (Adeniyi, 2012). The developmental challenges as a process of maturation result in intra-personal conflicts which youngsters may attempt to resolve by engaging in socially undesirable patterns of behaviours such as risk-taking, because it is mostly dependent on personal control (Uwakwe, 1998, Adeniyi 2012). Risk-taking behaviours are those potentially destructive behaviours such as smoking, drug abuse and sexual risk-taking behaviour which young people with little or no experience engage in, which may lead to consequences such as

major mortalities and morbidities (Uwakwe, 1998). Sexual risk-taking can then be defined as an act of engaging in unprotected or unsafe sexual activities that can lead to unwanted pregnancies, sexually transmitted disease and death. Sexual risk-taking is not only limited to adolescents without hearing impairment or disabilities. It is a common developmental problem prevalent among adolescents generally. Adeniyi (2007) submits that like any other adolescents, adolescents with deafness may have unprotected sexual activities because they have deep feeling of love and emotional attachment to their partners and or engage in what their peers are doing and as such may be infected with infections such as HIV/AIDS, and other sexually transmitted infections.

HIV/AIDS is one of the most urgent public health challenges facing both developing and developed nations (Guiella & Madise, 2007). These Pandemic infections constitute the most serious health risk affecting all the social and economic sectors of the populations leading to death of most productive young adults and adults thereby causing downturn to the economic sector, most especially, in the developing countries like Nigeria (Adeniyi, 2014).

Globally, an estimated 35.3 million people were living with HIV/AIDS in 2012 with 2.3 million new HIV infections, showing decline in the number of new infections. Similarly, the number of death as a result of AIDS is also declining with 1.6 million AIDS death in 2012 (National Agency for control of AIDS 2015). However, the epidemic continues to disproportionately affect sub-Sahara Africa with 70% of all new HIV infections (NACA 2015).

The epidemiology of HIV/AIDS in Nigeria, according to NACA (2015), reveals 3.4% lower than 3.6 in 2007 but there was generally higher prevalence among primary and secondary school students with about 4.0%. It should be noted that these strata of education consists of adolescents with and without hearing impairment. Young people are particularly vulnerable to sexually transmitted infections because they are sexually active. Over half of all new infections globally are among young people between the ages 15 and 24 (Tan, Pan, Znou Wang & Xie, 2007; UNAIDS 2012). The evidence presented above is a serious issue because adolescents whether with or without disabilities will definitely grow to become adults that will manage social, psychological and economic factors of any nation.

Predominantly in sub-Sahara Africa and especially in Nigeria, the major mode of transmission of HIV/AIDS is through unprotected heterosexual activities (WHO, 2002). Unfortunately, majority of these young adults, especially, adolescents with hearing impairment are grossly ignorant of information about what risk-sexual behaviour could lead to and how to avoid being infested with HIV/AIDS (Adeniyi, 2012). The reason might be because of a mistaken belief that adolescents with disabilities are not sexually active and are, therefore, not at risk of contracting sexually transmitted infections. Consequently, prevention campaigns and educational programmes ignore them, making them more vulnerable to the identified risk factors for HIV transmission (Groce & Trasi, 2004). United Nation (2011) expresses concern that a vast majority of adolescents with disabilities is not included in HIV initiatives, campaigns or educational materials and they are excluded from sex education programmes. UNAIDS (2013) also is that

low attention reports was paid to people with disabilities as it was evident in 2012 that only 71 countries reported that their multi-sectoral AIDS strategies integrate efforts to address people with disabilities. The attitudes demonstrated above by governments and some organisations could account for poor knowledge of HIV/AIDS among people with disabilities despite the global report of reduction of the incidence and spread of HIV/AIDS.

Generally, documentary evidence of casual sex, teenage pregnancy, increase incidence of STIs (sexually transmitted infections) such as HIV among adolescents indicate poor knowledge of how the disease spread, especially, among people with hearing impairment. Many researches have reported evidence of poor or low knowledge of HIV/AIDS among adolescents with hearing impairment (Bekese, 2003, Groce, Yousafzai & Van-der Mass, 2005; Fakolade, Adeniyi & Tella, 2005; Bisol, Superb, Brevier, Kato & Shor-Posner, 2008). The consistent reports of low knowledge of HIV is tied to chain of barriers and taboos, combined with persistent poverty and exclusion affecting a large majority of persons with disabilities and their families, depriving them access to sex education and information (UNICEF, 2012). It must be noted that the only solution to this is comprehensive education on HIV and sexuality is a priority for UNESCO and UNAIDS which is clearly expressed in UNAIDS Strategy and Result Framework, establishing the support of youth as a priority, so that they have the ability to protect themselves from HIV through full knowledge of the virus, particularly through sexual education (Ferreira, Bento, Chares & Duarte 2014). Having direct access to information about HIV/AIDS has been the major strategy of empowering the

individuals and community to be able to overcome the challenges of the ravaging disease.

Since young people, especially adolescents, are the centre of the epidemic, it is important to document, not only how much they know or do not know about HIV, especially, the ones with hearing impairment. Documentation of factors that can predict HIV/AIDS knowledge among adolescents with hearing will be highly useful and necessary for action plan to achieve HIV free community. Evidently, Nigerian Educational Research and Development council has developed a curriculum on Family Life and HIV/ Education and since 2003, introduced it to all cadres of school system in Nigeria. This was to empower children, young adults and adults with necessary knowledge of HIV/AIDS and skills that will aid healthy sexual behaviours among students.

Family Life and HIV/Education (FLHE) is a curriculum packaged at fostering the acquisition of factual information, formation of positive attitudes, beliefs, values as well as development of skills to cope with biological, sexual, physiological, socio-cultural and spiritual aspects of human being with the following objectives:

- i. to develop a positive and factual view of self;
- ii. to acquire the information and skills they need to take care of their health including preventing HIV/AIDS;
- iii. to respect and value themselves and others; and
- iv. to acquire the skill needed to make healthy decision about their sexual health and behaviour (NERDC, 2003).

The curriculum introduces students, be it adolescents and adults to knowledge of

sexually transmitted infections and life building skills such as self-esteem, goal setting and decision-making. These skills are expected to motivate the right knowledge towards healthy and independent living devoid of life threatening conditions. It will there be expedient to explore the relationship between these life building skills and knowledge of HIV/AIDS among adolescents with hearing impairment in a bid to provide justification for the efficacy of Family Life and HIV/AIDS education.

Self-esteem, the individuals' opinion about their self-worth or their ability to feel positive about themselves has been identified as one of the factors influencing health behaviour (De Bruijin, Kremers, Van Machelen & Brug, 2005) and over all psychological well being (Rosenbergm Schobler, Schoenbach & Rosenberg, 1995). Comprehensive researches on deterministic impact of self-esteem and health risky behaviour reveal a level of association between health behaviour and different types of self-esteem of adolescents. A number of researchers have reported consistently that low self-esteem places individuals at high risk for taking part in risky sexual activities including having multiple sex partners and engaging in unprotected sex (Geckil & Dundar, 2011, Lejuez, Simons, Aklin, Daughter & 2004; Wilo, Bhana, & Lombard, 2004). In addition, studies by Morris, Young & Jone (2000) and Hally and Pollack (1993) reported that college students with a wide variety of sexual experience scored low in Rosenberg's self-esteem scale. But Rosenthal, Moore and Flynn (1991) state that both male and female adolescents with high self-esteem practice high sexual risky behaviours. It is, therefore, necessary to note that both high and low self-esteem in any adolescent can influence his/her knowledge and engagement in risky sexual activities.

This is because self-esteem serves and motivates the acquisition of knowledge about a particular subject.

Goal-setting is another skill under the Family Life and HIV/Education that is regarded as a determinant of knowledge on HIV. This is because the ability to set goals gives cognitive direction on what is good, what to do at appropriate time and what can destroy life aspirations. Goal-setting makes adolescents to be directional and disciplined in order to achieve life aspiration (Adeniyi & Olufemi-Adeniyi, 2014). Bandura, (1991) notes that goal-setting increases people's cognitive and affective reactions. This implies that setting goal aids people to engage in worthwhile activities that promote right behaviour. The nature of adolescents involves struggling with setting and striving to attain goals which lead to self-discipline (Duckworth, Grant, Leon, Oettingen & Gollwitzer, 2009). The ability to sustain self discipline is goal-setting which can prevent engaging in risky sexual behaviour and in turn the spread to HIV/AIDS.

Furthermore, decision-making is another fundamental skills that Family Life and HIV/Education curriculum aim at building in the life of children, young adults and adults. It is believed that right decision emanates from adequate knowledge. Adolescence is considered as a period that is full of challenges in the developmental process of a man. Decision about sexuality is highly sensitive and adolescents are sometimes confused due to tendency to experiment their sexual feelings. Among other challenges that may face adolescents with hearing impairment is how to take decision that will positively influence their lives (Adeniyi, 2012). This is because like any other adolescents, they are sexually active with feelings; unfortunately, lack adequate information that can influence their

knowledge. Adeniyi (2007) notes that conventional sexual activities are common among adolescents with hearing impairment because of misconception and misinterpretation of information about sexual health. This is because most adolescents with disabilities have poor education and suffer from several social stigmas that lead to their ostracism, exclusion and do not attend school (UNICEF, 2005, UNESCO 2010). Hence, making appropriate decision about their health may be difficult because of a number of reasons.

In addition, literature has also revealed that HIV/AIDS proliferation is common and influenced by age and this sometimes may have significant effect on knowledge aside of their disabilities. UNICEF (2002) reports that incidence of HIV/AIDS is mostly common among young people between ages 15 and 24 and that out of about 6000 young people being infested within the ages mentioned, only few of them know how this infection spreads. This was further corroborated by Sign and Jain (2009) that HIV/AIDS is common among young adults in the age group between 15 and 24 years, mostly in their active and productive age. This increase incidence of HIV/AIDS among young people, especially the adolescents, attest to the fact that sex education is culturally considered sacrilegious and something that must not be taught among young people because of the fear of experimenting the act in traditional Africa setting.

Again, research by Duvall (2000) reveals that deaf and hard of hearing children and adolescents are more prone to sexual abuse than hearing children. This finding is corroborated by Health Resources and Services Administration (2000) that presents that the prevalence of HIV disease among

deaf and hard of hearing in the United States is greater than the general population. The dimension and impact would have been the same whether the problem is congenital or adventitious. The reason was adduced to the risk of poor access to society's educational, religion and social institutions coupled with shortage of prevention and care provider equipped to serve their population effectively. Hence, knowledge of HIV among deaf population will in no small measure be affected. If such could have happened in developed economy like U.S, the rate and incidence will be higher in Nigeria, a Sub-Sahara Africa that is considered one of the poorest economies in the world.

In additions, general population statistics reveal a significant gender influence in HIV incidence and infection rate. For instance, where hetero-sexual transmission of HIV/AIDS is prevalent, young women between ages 15-24 are significantly infected (Campbell, Smbizvo, 1994; World Youth Report, 2003). This is because in many societies, especially in traditional Africa society, decision making on sexual activities put women at disadvantage. This is even worse when it comes to the issue of those with disabilities, especially young ladies with hearing impairment as they are subjected to sexual abuse. Generally, it was reported that most women are infected with HIV through high risk hetero-sexual contact, lack of HIV knowledge, low perception of the risk, drug or alcohol use, socio-economic issues, biological nature and emotional cum psychological feelings (CDC HIV/AIDS fact sheet, 2008).

From the foregoing, it is very clear that some practices among adolescents, especially adolescents with hearing impairment, are as a result of inadequate

knowledge linked to lack of some developmental skills and information and inherent problems that can influence their ability to cope with life challenges.

Statement of the Problem

Adolescents with hearing impairment like any other adolescents are confronted with life challenges such as social, psychological development, and sexual health challenges. The situation is further compounded by inability to hear and comprehend messages that can help them take decision that will impact their lives positively. Significantly, adolescents with hearing impairment lack skills that could help them to cope with life challenges. These skills can directly and indirectly influence knowledge of life threatening situations. Therefore, it is expedient to know whether those life building skills (self-esteem, goal setting and decision making) can determine HIV/AIDS knowledge among adolescents with hearing impairment. Therefore, this study investigated some predicting factors of HIV/AIDS knowledge among adolescents with hearing impairment in Southwest, Nigeria.

Research Questions

- i. What is the relationship between the independent variables (self-esteem, goal-setting, decision-making, age, gender, onset and degree of loss) and HIV/AIDS knowledge of adolescents with hearing impairment in Southwest, Nigeria?
- ii. What is the composite contribution of the independent variables (self-esteem, goal-setting, decision-making, age, gender, onset and degree of loss) to HIV/AIDS knowledge of adolescents with

hearing impairment in Southwest, Nigeria?

- iii. What is the relative contribution of the independent variables (self-esteem, goal-setting, decision-making, age, gender, onset and degree of loss) to HIV/AIDS knowledge of adolescents with hearing impairment in Southwest, Nigeria?

Methodology

This study adopted survey research design of *ex-post facto* type because only existing variables were investigated without manipulation. The population for the study comprised all adolescents with hearing impairment from junior secondary school to senior secondary year two. The final year students were not considered because they were preparing for their external examination. Sample for the study were 450 comprising 250 (56.6%) females and 200 (43.4%) males adolescents with hearing impairment. The multi-stage sampling technique was adopted. The states used were selected using stratified sampling technique, while schools and participants used were selected using purposive sampling. The sample and location were selected based on the age, availability and peculiar attributes of the students and schools based on their characteristics (special, integrated and inclusive). The states were Osun, Ondo, Ekiti, Lagos, Ogun and Oyo in Southwest, Nigeria.

HIV/AIDS predictive behaviour inventory, consisting of self-esteem, goal-setting, decision-making and HIV/AIDS knowledge scales was used in data

collection. The inventory was divided into two sections namely Section A and B. Section A consisted Bio data of the participants while B consisted four different scales constructed in four Likert scales with 10 items each namely, adapted self-esteem scale developed by Rosenberg (1965), adapted Goal-setting scale developed by Rushall and Fisdell (1992), adapted Decision-making scale developed by Nola, Huges, Terry, Astrow and Thompson (2009) and a self constructed HIV/AIDS knowledge scale with reliabilities of 0.08, 0.62, 0.60 and 0.62 respectively.

The researcher, with the help of four research assistants visited each location to administer the questionnaire. Each section of the inventory was properly explained and interpreted in a manner that will give the participants the opportunities to attend to the inventory adequately and responses were thereafter collected. The school records of the participants were also collected to ascertain the age of onset and degree of losses.

Data collected were analysed using Pearson Product Moment Correlation and Linear Multiple Regression to determine the relationship, relative and composite effect of independent and dependent variables.

Result

Research Question 1

What is the relationship between the independent variables (self-esteem, goal-setting, decision-making, age, gender, onset and degree of loss) and HIV/AIDS knowledge of adolescents with hearing impairment in southwest, Nigeria?

Table 1: Descriptive Statistics and Correlations among Variables

Variable	1	2	3	4	5	6	7	8
Age	1.000							
Gender	-0.172**	1.000						
Onset of loss	-0.015	0.004	1.000					
Degree of loss	-0.002	0.055	-0.251**	1.000				
Self-esteem	-0.125**	-0.015	0.035	0.150**	1.000			
Goal-setting	-0.072	0.094*	-0.0067	0.133**	0.480**	1.000		
Decision making	-0.042	-0.020	-0.057	0.114**	0.582**	0.616**	1.000	
Knowledge	-0.102*	0.017	-0.027	0.186**	0.510**	0.487**	0.551**	1.000
Mean	18.711	-	1.367	1.500	21.244	20.436	20.347	21.084
Standard Deviation	2.838	-	0.524	0.523	4.513	4.641	5.201	5.905

* Correlation is significant at the 0.05 level

Table 1 shows the mean, standard deviation and zero order correlation among the variables. It was observed that there was significant relationship between the independent variables and the dependent variable (HIV/AIDS Knowledge) in the following order of decision-making ($r=0.551$; $p<0.05$), self-esteem ($r=0.510$; $p<0.05$), goal-setting ($r=0.487$; $p<0.05$), degree of loss ($r=0.186$; $p<0.05$) and age ($r=-0.102$; $p<0.05$). However, gender ($r=0.017$, $p>0.05$) and onset of loss ($r=-0.027$; $p>0.05$) were not significantly correlated with HIV/AIDS knowledge among adolescents

with hearing impairment in Southwest, Nigeria. It then implied that the independent variables can predict knowledge of HIV/AIDS among adolescents with hearing impairment.

Research Questions 2

What is the composite contribution of the independent variables (self-esteem, goal-setting, decision-making, age, gender, onset and degree of loss) to HIV/AIDS knowledge of adolescents with hearing impairment in Southwest, Nigeria?

Table 2 Joint Effect of Independent Variables Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
0.621	0.386	0.376	4.64231

ANOVA

	Sum of Square	df	Mean Square	F	P	Remark
Regression	569.61	7	814.09	37.78	0.000	Sig
Residual	9073.00	421	21.55			
Total	14771.61	428				

From Table 2, it could be observed that there is positive multiple correlation (R value = 0.621) among the seven independent variables (age, gender, onset of loss, degree of loss, self-esteem, goal-setting and decision making) and the dependent variable (HIV/AIDS knowledge) among adolescents with hearing impairment in Southwest, Nigeria. This implies that the factors are

relevant towards the determination of the measure.

Research Questions 3

What is the relative contribution of the independent variables (self-esteem, goal-setting, decision-making, age, gender, onset and degree of loss) to HIV/AIDS knowledge of adolescents with hearing impairment in Southwest, Nigeria?

Table 3 Relative of Independent Variables on Dependents Summary

	Unstandardised Coefficient		Standardise d Coefficient	Rank	T	P
	B	Std. Error	Beta			
Constant	.3.447	2.354			1.465	0.144
Age	-0.093	0.080	-0.046	6th	1.162	0.246
Gender	-0.158	0.462	-0.013	7th	0.341	0.733
Onset of loss	0.251	0.447	0.022	5th	0.562	0.575
Degree of loss	1.158	0.451	0.103	4th	2.566	0.011
Self-esteem	0.289	0.063	0.224	2 nd	4.564	0.000
Goal setting	0.216	0.063	0.172	3rd	3.427	0.001
Decision making	0.338	0.060	0.302	1st	5.618	0.000

Dependent variable: knowledge

From Table 3, decision making made the highest contribution to HIV/AIDS knowledge among adolescents with hearing impairment in Southwest Nigeria ($\beta=0.302$) followed by self-esteem ($\beta=0.224$), goal setting ($\beta=0.172$), degree of loss ($\beta=0.103$), onset of loss ($\beta = 0.022$), age ($\beta = -0.046$) and gender ($\beta-0.013$) took the last position. Decision-making ($B=0.338$, $t = 5.618$, $p<0.05$); self-esteem ($B=0.289$, $t=4.564$, $p<0.05$); goal setting ($B=0.216$, $t=3.42$, $p<0.05$) and degree of loss ($\beta=1.158$, $t = 2.566$; $p<0.05$) were the variables that predict HIV/AIDS knowledge among

adolescents with hearing impairment in Southwest, Nigeria.

Discussion

Research question 1 states that "there will be significant relationship among independent variables and HIV/AIDS knowledge of adolescents with hearing impairment in Southwest, Nigeria". The result from table 1 indicates that there were relationship between independent and dependent variables. However, gender and onset of loss demonstrated less significant prediction of HIV/AIDS knowledge among the participants. Decision-making, self-

esteem, goal setting, degree of loss and age significantly influence HIV/AIDS knowledge of adolescents with hearing impairment. This finding is in support of Adeniyi's (2007) view that decision to engage in conventional sexual activities which can aid contraction of sexually transmitted infections is due to misconception and misinterpretation of the information about sexual relationship and the disease "HIV/AIDS". For instance, there is a mistaken belief that adolescents with disabilities are not sexually active and therefore, not at risk of contracting sexually transmitted infection (Osowole & Oladebo, 2001; Groce, 2003; Kelly, Ntlabati, Oyosi, Vander, Reit & Parker, 2003; UNICEF, 2012). This belief makes prevention campaigns and educational programmes not to be at reach of adolescents with hearing impairment thus making them vulnerable to the recognised factors for HIV transmission (Groce & Trasi, 2004) and thereby, influencing their knowledge of HIV/AIDS.

The significant relationship existing between knowledge and self-esteem, goal setting, degree of loss age is in line with Yousafzai & Edwards (2004) who found that low self-esteem among children and adolescents with disabilities deny them of requisite knowledge of sex education which directly affects their knowledge. Campbell and Lavalley (1993) also affirm that self-esteem has pervasive and powerful impacts on human cognition, motivation, emotion and behaviour. Likewise, goal setting, increases people's cognitive drive towards academic and social life (Tanaka and Yamanchi, 2001; Marzamo, 2003).

The direct relationship of age and HIV/AIDS knowledge is corroborated by the fact that HIV/AIDS epidemic is prevalent among adolescents as new cases of HIV are occurring among young people between

ages 15 and 24 years (UNAIDS, 2004; Chilisa, Ilhabano, Vista, Pheko Losike, Mosime, Mpeta & Balogun, 2013). This is because a large proportion of adolescents are cut off from information about HIV and sexually transmitted diseases. Often, from the very young age, children with disabilities face barrier of vital information in their society (UNICEF, 2012). The same trend happens as to why the degrees of loss, onset and gender have relationship with knowledge of HIV/AIDS. These findings are in conformity with the findings of Duvall (2000) that reported that deaf and hard of hearing, pre and post lingual often demonstrated low knowledge of information about HIV/AIDS and World Youth Report, (2003) also report gender influence of knowledge of HIV/AIDS.

Research question 2 states to what extent when combined will the independent variables (decision-making, self-esteem, goal setting, gender, age, onset of loss and degree of loss) predict HIV/AIDS knowledge of adolescents with hearing impairment in Southwest, Nigeria.

The result in table 2 shows that there was joint influence of the independent variables on HIV/AIDS knowledge of adolescents with hearing impairment. Though there were scanty evidences that revealed joint prediction of all the independent variables and dependent variable, literatures abound that demonstrated the effect of each independent variable and dependent variable. For instance Adeniyi, Oyewumi and Fakolade (2010) and Adedemeji, Okpala and Ibeagha (1999) reveal the joint influence of self-esteem, goal setting and decision-making on HIV/AIDS knowledge among their participants through the curriculum of Family Life and HIV Education. The findings of this study is also in line with

studies carried out by Chilisa et al (2013) on self-efficacy, self-esteem and intention to practice safe sex among Botswana adolescents and Jambo and Elliot (2005) Seijts, Tham, Tasa & Latham (2004) Cole and Slocumb (1995) Hollar and Smizek (1995) that revealed significant contribution of the independent variables and HIV/AIDS knowledge among adolescents which could have predicated their sexual behaviours. Also, the age and gender influence which have been attributed to lack of information and the desire for sexual experimentation is line with some studies that revealed age and gender as significant factors for the incidence and prevalence of HIV/AIDS among adolescents (Sungh Woog & Walf, 2004; Bankole, & Groce & Trasi 2004; Berman & Meresman, 2010; UNICEF, 2012). Also Heutel and Rothstein (2001) reported that deafness could influence access to information which might be the reason why students with deafness score significantly low in HIV/AIDS knowledge index compare with their hearing counterparts.

Research questions 3 states to what extent will each of the independent variables (age, sex, onset of loss, degree of loss, self-esteem, goal-setting and decision-making) predict HIV/AIDS knowledge of adolescents with hearing impairments in Southwest, Nigeria. The result in Table 1.3 reveals that independent variables demonstrated the degrees of prediction of HIV/AIDS knowledge of adolescents with hearing impairment in Southwest, Nigeria. Decision-making made most potent predictor of HIV/AIDS knowledge among the participants. The implication of this is that decision-making of the participants reveal the level of their knowledge. This is why Adeniyi (2007) submits that conventional sexual activities are mostly common among

adolescents with hearing impairment because of less access to information, (UNICEF, 2012), less education which is mostly prevalent in developing countries (UNESCO, 2010) and misconception and misinterpretation given to sex education and the believe that people with disabilities are asexual and as such do not need information about HIV/AIDS.

Conclusion

This study carried out analysis of some predicting variables of HIV/AIDS knowledge among adolescents with hearing impairment in Southwest, Nigeria. The findings reveal that some factors could predict HIV/AIDS knowledge of adolescents with hearing impairment. However, decision-making of adolescents with hearing impairment is greatly dependent on the knowledge of the pandemic disease. The lack or low knowledge of HIV/AIDS among adolescents with hearing impairment was traced to a number of reasons such as lack of developmental skills, inadequate information based on lack of education, poor structured of HIV/AIDS information that only centred on non-disabled individuals.

Recommendations

HIV/AIDS education and information should be planned in such a way that it will take into consideration people with disabilities in order to totally mitigate the further spread of HIV. Adolescents with hearing impairment should be trained on life building skills such as decision-making, self-esteem, goal setting, negotiation and hosts of other skills that can help them live independent and disease free lives. Adolescents with hearing impairment should be helped to develop good decision-making as this is paramount to life activities. Government and non-governmental

organisations should evolve programmes that will involve and empower adolescents with learning impairment to cope with life challenges.

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