

# Knowledge of Njala Campus Athletes about Abstinence from Diseases Associated with Unsafe Sexual Practices such as Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome {HIV/AIDS}, Gonorrhoea {GR} and Syphilis {SP}, aimed as Primary Prevention Strategy in Minimizing the Process of Ageing

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## Abstract

This study was aimed at the primary prevention strategy in minimizing the process of ageing among Njala campus athletes. The rationale of the study is to evaluate the knowledge of Njala campus athletes about abstinence from diseases associated with unsafe sexual practices such as human immunodeficiency virus/acquired immune deficiency syndrome (Hiv/Aids), gonorrhoea {Gr} and syphilis {Sp}, aimed as primary prevention strategy in minimizing the process of ageing. The participants with a quantum of one hundred and fifty {n=150} for the study were mainly athletes within the undergraduate sector of the university of which, 63% were male {n=95} and 37% were female {n=55}; 27% Christian-male {n=40} and 20% Christian-female {n=30}; 36.6% Muslim-male {n=55} and 16.6% Muslim-female {n=25}; 4% married-male {n=6} and 3% married-female {n=4}; 59% single-male {n=89} and 34% single-female {n=51}; 43.3% south/east-male {n=65} and 23.3% south/east-female {n=35}; 20% north/west-male {n=30} and 13% north/west-female {n=20}, were randomly sampled from four schools using the systematic random sampling i.e. 26.6% male {n=40} from school of agriculture/environmental science and 16.6% female {n=25} from school of agriculture/environmental science; 37% male {n=55} from school of education/technology and 20% female {n=30} from school of education/technology. Also randomly sampled from four levels were 53% male {n=80} from {100-200} levels and 30% female {n=45} from {100-200} levels; 10% male {n=15} from {300-400} levels and 7% female {n=10} from {300-400} levels; 40% male {n=60} were ranked within {18-25} years and 20% female {n=30} were ranked within {18-25} years; 23% male {n=35} were ranked within {26-30+} years and 17% female {n=25} were ranked within {26-30+} years. The results were compared using the dependent t-test (t) and scaled @ p < 0.05 level of significance. Analysis of results about abstinence from diseases associated with unsafe sexual practices such as human immunodeficiency virus/acquired immune deficiency syndrome (hiv/aids), gonorrhoea (gr) and syphilis (sp), indicate a holistic significance differences are highlighted. Conclusion: the results indicate that Njala campus athletes did display professional experience about primary prevention strategic knowledge of minimizing the process of ageing with special reference to abstinence from diseases associated with unsafe sexual practices such as human immunodeficiency virus/acquired immune deficiency syndrome {Hiv/Aids}, gonorrhoea {Gr} and syphilis {Sp}. This study therefore recommends that availability and accessibility of training workshops, seminars and clinical test be given readily and frequently to Njala Campus Athletes prior to any intercollegiate competitions.

## Introduction

Health is the level of functional or metabolic efficiency of a living organism. In humans it is the ability of individuals or communities to adapt and self-manage when facing physical, mental or social challenges, *Huber et al. (2011)*. The World Health Organization (WHO) defined health in its broader sense in its 1948 constitution as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity, (*Grad, 2002; and WHO 1946*). Public health has been described as "the science and art of preventing disease, prolonging life and promoting health through the organized efforts and informed choices of society, organizations, public and private, communities and individuals, (*Winslow, 1920*). However, collegiate athletes being members of these organizations, groups and communities are being perceived healthier and attentive to their wellbeing. But contrary to that perception, *Nattiv et al (1991)* highlighted that collegiate athletes are ranked higher in risk factors for certain lifestyle behaviors, with a possible projection on emotional, physical, and mental stresses. Before the industrial revolution, fitness was the capacity to carry out the day's activities without undue fatigue (*Colfer, 2004*). However, with automation and changes in lifestyles, physical fitness is now considered a measure of the body's

ability to function efficiently and effectively at work and during leisure activities, to be healthy, to resist hypokinetic diseases, and to meet emergency situations, (*Colfer, 2004*). A comprehensive fitness program tailored to an individual typically focuses on one or more specific skills and on age or health-related needs such as bone health (*Nied, et al, 2002*). Many sources also cite mental, social and emotional health as an important part of overall fitness, (*Nied et al, 2002*). Human immunodeficiency virus infection and acquired immune deficiency syndrome (HIV/AIDS) is a spectrum of conditions caused by infection with the human immunodeficiency virus (HIV), (*Sepkowitz, 2001*). Following initial infection, a person may experience a brief period of influenza-like illness. This is typically followed by a prolonged period without symptoms. As the infection progresses, it interferes more and more with the immune system, making the person much more susceptible to common infections like tuberculosis, as well as opportunistic infections and tumors that do not usually affect people who have working immune systems. The late symptoms of the infection are referred to as AIDS. This stage is often complicated by an infection of the lung known as pneumocystis pneumonia, severe weight loss, a type of cancer known as Kaposi's sarcoma, or other AIDS-defining conditions, (*Barbaro et*

al. 2011). HIV is transmitted primarily via unprotected sexual intercourse (including anal and oral sex), contaminated blood transfusions, hypodermic needles, and from mother to child during pregnancy, delivery, or breastfeeding, (Baggaley et al, 2008). Some bodily fluids, such as saliva and tears, do not transmit HIV (CDC, 2003). Common methods of HIV/AIDS prevention include encouraging safe sex, needle-exchange programs, and treating those who are infected, (Kallings, 2008). There is no cure or vaccine; however, antiretroviral treatment can slow the course of the disease and may lead to a near-normal life expectancy. While antiretroviral treatment reduces the risk of death and complications from the disease, these medications are expensive and have side effects (Vogel, et al, 2010).

Gonorrhoea, also known as gonococcal infection, gonococcal urethritis, gonorrhoea and the clap, (Workowski et al, 2015), is a sexually transmitted infection that is caused by the bacterium *Neisseria gonorrhoea*. The usual symptoms in men are a burning sensation with urination and discharge from the penis. Women have no symptoms about half the time or have vaginal discharge and pelvic pain. In both men and women, if gonorrhoea is left untreated, it may spread locally, causing inflammation of the epididymis or pelvic inflammatory disease or throughout the body, affecting joints and heart valves. Testing all women who are sexually

active and less than 25 years of age each year is recommended. This same recommendation applies in men who have sex with men. Gonorrhoea can be prevented with the use of condom, (Workowski et al, 2015). Syphilis is a sexually transmitted infection caused by the spirochete bacterium *Treponema Pallidum* subspecies *pallidum*. The primary route of transmission is through sexual contact: it may also be transmitted from mother to fetus during pregnancy or at birth, resulting in congenital syphilis. (Gao et al, 2009). The signs and symptoms of syphilis vary depending in which of the four stages it presents (primary, secondary, latent, and tertiary). The primary stage classically presents with a single chancre (a firm, painless, non-itchy skin ulceration), secondary syphilis with a diffuse rash which frequently involves the palms of the hands and soles of the feet, latent syphilis with little to no symptoms, and tertiary syphilis with gummas, neurological, or cardiac symptoms. It has, however, been known as "the great imitator" due to its frequent atypical presentations (Gao et al, 2009).

Collegiate athletics according to Andrew, (2003) is a non-professional university level of competition in games and sport that requires collegiate athletes the physical skills and training in preparation for competitive performances. Collegiate athletes as defined by Gerdy, (2000) are participants that are engaged in formally organized competitions in

games and sports sponsored by their educational institutions. In defining the term athletes, *Weiss, (1995)* state that, athletes are group of individuals, people, persons or participants that are involved in any form of competition in games and sports for professional reasons or recreational purposes and that they are more prone and exposed than non-athletes in the exhibition of risk behaviors that are potentially hazardous to their active wellbeing with little or no attention paid to the side effects or contraindications posed, thereby causing premature ageing at a chronologically young age as put forward by *Banks et al (2003)*. Hence, as evidenced by *Muffuli et al (2003)*, athletes that take into cognizance the side effects or contraindications posed by the exhibition of those risk behavioral factors that accelerate or speeds up premature ageing and the modalities put in place in minimizing the process of ageing by abstinence adherence from activities associated with such risk factors are by definition called primary prevention knowledge or strategy. In humans, ageing represents the accumulation of changes in a human being over time, *Bowen et al. (2004)* encompassing physical, psychological, and social change. Reaction time, reduction in musculoskeletal strength, increased difficulty in respiration and decreased anaerobic capacity and aerobic fitness due to cigarette smoking, unhealthy diet, alcohol consumption and physical inactivity among others for example,

may slow with age, while knowledge of world events and wisdom may expand. Ageing is among the greatest known risk factors for most human diseases, *Dillin et al (2014)* of the roughly 150,000 people who die each day across the globe, about two thirds die from age-related causes.

The rationale of this survey study is to comparatively measure and evaluate the significant differences in Knowledge, about abstinence from diseases associated with unsafe sexual practices such as Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome {HIV/AIDS}, Gonorrhoea {GR} and Syphilis {SP} of Njala Campus Athletes, aimed at primary prevention strategy in minimizing the process of ageing ranked among year-one-to-year-two and year-three-to-year-four athletes at Njala Campus.

### **Material and Methods**

*Selection of Participants:* The participants with a quantum of one hundred and fifty {n=150} for the study were mainly athletes within the undergraduate sector of the university of which, 63% were male {n=95} and 37% were female {n=55}; 27% Christian-male {n=40} and 20% Christian-female {n=30}; 36.6% Muslim-male {n=55} and 16.6% Muslim-female {n=25}; 4% Married-male {n=6} and 3% Married-female {n=4}; 59% Single-male {n=89} and 34% Single-female {n=51}; 43.3% South/East-male {n=65} and 23.3% South/East-female {n=35}; 20%

North/West-male {n=30} and 13% North/West-female {n=20}, were randomly sampled from four Schools using the systematic random sampling i.e. 26.6% male {n=40} from School of Agriculture/Environmental Science and 16.6% female {n=25} from School of Agriculture/Environmental Science; 37% male {n=55} from School of Education/Technology and 20% female {n=30} from School of Education/Technology. Also randomly sampled from four levels were 53% male {n=80} from {100-200} levels and 30% female {n=45} from {100-200} levels; 10% male {n=15} from {300-400} levels and 7% female {n=10} from {300-400} levels; 40% male {n=60} were ranked within {18-25} years and 20% female {n=30} were ranked within {18-25} years; 23% male {n=35} were ranked within {26-30+} years and 17% female {n=25} were ranked within {26-30+} years.

*Instrument for Measuring the Parameter:* This research was designed as a descriptive survey. Abstinence from diseases associated with unsafe sexual practices such as Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome {HIV/AIDS}, Gonorrhoea {GR} and Syphilis {SP} were the tested independent variables. The risk health behaviour modified survey questionnaire {RHBMSQ} was engaged as the quantitative and scientific research instrument for testing the parameters, which was formally used by *Bebeley, (2016)*. The

questionnaire was categorized into *Section-One*, indicating demographic data and *Section-Two*, indicating variable data. The validated questionnaire as a survey instrument by qualified personnel in the Department of Human Kinetics and Health Education, was pre-tested on athletes of Kenema Polytechnic {n=50} using the logic of test-retest with a high intra-class correlation coefficient reliability {R=0.99} powered by ANOVA as pointed out from tables 1-9 respectively.

*Test Procedures:* One hundred and fifty {n=150} mainly undergraduate Njala Campus Athletes were ranked randomly from year-one-to-year-two and year-three-to-year-four; from the School of Agriculture-to-Environmental Science and from the School of Education-to-Technology, using a stratified random sampling logic. Participants were given a pre-training face to face session interrogation at the Campus Sport Complex in response to the dependent variables {Yes or No} in the validated self-restructured survey questionnaire instrument by the researcher coupled with assistance from members of staff of Human Kinetics and Health Education Department, Njala Campus {NC}. The responses provided by the participants were quantitatively analyzed as highlighted in the results below.

*Statistical Analysis:* The percentage, mean, standard deviation, frequency distribution tables and inferential

statistics of Dependent t-test {t} were altogether used in the analysis of the obtained data from knowledge of Njala Campus Athletes about primary prevention strategy in minimizing the process of ageing by engaging the risk health behavioral modified survey questionnaire {RHBMSQ} as the quantitative and scientific research instrument for testing the parameters,

which was formally used by *Bebeley (2016)*, aimed at finding possible significant differences regarding knowledge of Njala Campus Athletes about primary prevention strategy in minimizing the process of ageing. The results were scaled at level of significance  $p < 0.05$ .

### Results

**Table 1: Test-retest Demographic Scores of Respondents' Age Range due to Sex {n=50}**

SEX	AGE RANGE				A <sup>2</sup>		B <sup>2</sup>		SI		SI <sup>2</sup>	
	A {18-25}		B {26-35 +}		D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub> + D <sub>2</sub>		D <sub>1</sub> + D <sub>2</sub>	
	D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub>	D <sub>2</sub>					A	B	A	B
Male	25	24	10	11	625	576	100	121	49	21	2401	441
Female	10	09	05	06	100	81	25	36	19	11	361	121
{n=2}	∑A = 68 {∑A} <sup>2</sup> = 4624		∑B = 32 {∑B} <sup>2</sup> = 1024		∑A <sup>2</sup> = 1382		∑B <sup>2</sup> = 282		∑Si <sup>2</sup> =		2762	562
*Reliability {R = 0.99}												

**Table 2: Test-retest Demographic Scores of Respondents' Matrimonial State due to Sex {n=50}**

SEX	MATRIMONIAL STATE				A <sup>2</sup>		B <sup>2</sup>		SI		SI <sup>2</sup>	
	A {Single}		B {Married}		D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub> + D <sub>2</sub>		D <sub>1</sub> + D <sub>2</sub>	
	D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub>	D <sub>2</sub>					A	B	A	B
Male	30	29	08	09	900	841	64	81	59	17	3481	289
Female	10	09	02	03	100	81	04	09	19	05	361	25
{n=2}	∑A = 78 {∑A} <sup>2</sup> = 6084		∑B = 22 {∑B} <sup>2</sup> = 484		∑A <sup>2</sup> = 1922		∑B <sup>2</sup> = 158		∑Si <sup>2</sup> =		3842	314
*Reliability {R = 0.99}												

**Table 3: Test-retest Demographic Scores of Respondents' Religious Focus due to Sex {n=50}**

SEX	Religious Focus				A <sup>2</sup>		B <sup>2</sup>		SI		SI <sup>2</sup>	
	A {Muslim}		B {Christian}		D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub> + D <sub>2</sub>		D <sub>1</sub> + D <sub>2</sub>	
	D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub>	D <sub>2</sub>					A	B	A	B
Male	26	25	10	09	676	625	100	81	51	19	2601	361
Female	10	11	04	05	100	121	16	25	21	07	441	49
{n=2}	∑A = 72 {∑A} <sup>2</sup> = 5184		∑B = 26 {∑B} <sup>2</sup> = 676		∑A <sup>2</sup> = 1522		∑B <sup>2</sup> = 222		∑Si <sup>2</sup> =		3042	410
*Reliability {R = 0.99}												

**Table 4: Test-retest Demographic Scores of Respondents' Regional Point due to Sex {n=50}**

SEX	Regional Point				A <sup>2</sup>		B <sup>2</sup>		SI		SI <sup>2</sup>	
	A {South/East}		B {North/West}		D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub> + D <sub>2</sub>		D <sub>1</sub> + D <sub>2</sub>	
	D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub>	D <sub>2</sub>					A	B	A	B
Male	22	23	15	14	484	529	225	196	45	29	2025	841
Female	08	09	05	04	64	81	25	16	17	09	289	81
{n=2}	∑A = 62 {∑A} <sup>2</sup> = 3844		∑B = 38 {∑B} <sup>2</sup> = 1444		∑A <sup>2</sup> = 1158		∑B <sup>2</sup> = 462		∑Si <sup>2</sup> =		2314	922
*Reliability {R = 0.99}												

**Table 5: Test-retest Demographic Scores of Respondents' School Name due to Sex {n=50}**

SEX	SCHOOL NAME				A <sup>2</sup>		B <sup>2</sup>		SI		SI <sup>2</sup>	
	A		B		D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub> + D <sub>2</sub>		D <sub>1</sub> + D <sub>2</sub>	
	{Edu./Tech}	{Ag./Env. Sc.}	D <sub>1</sub>	D <sub>2</sub>					A	B	A	B
Male	24	25	12	11	576	625	144	121	49	23	2401	529
Female	06	07	08	07	36	49	64	49	13	15	169	225
{n=2}	∑A = 62 {∑A} <sup>2</sup> = 3844		∑B = 38 {∑B} <sup>2</sup> = 1444		∑A <sup>2</sup> = 1286		∑B <sup>2</sup> = 378		∑Si <sup>2</sup> =		2570	754

Table 6: Test-retest Demographic Scores of Respondents' Level in Academe due to Sex {n=50}

SEX	LEVEL IN ACADEME				A <sup>2</sup>		B <sup>2</sup>		SI		SI <sup>2</sup>	
	A		B		D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub> + D <sub>2</sub>		D <sub>1</sub> + D <sub>2</sub>	
	{Level L <sub>1</sub> -L <sub>2</sub> }	{Level L <sub>3</sub> -L <sub>4</sub> }	D <sub>1</sub>	D <sub>2</sub>					A	B	A	B
Male	28	29	10	09	784	841	100	81	57	19	3249	361
Female	10	11	02	01	100	121	04	01	21	03	441	09
{n=2}	∑A = 78 {∑A} <sup>2</sup> = 6084		∑B = 22 {∑B} <sup>2</sup> = 484		∑A <sup>2</sup> = 1846		∑B <sup>2</sup> = 186		∑Si <sup>2</sup> =		3690	370

Table 7: Knowledge of Test-retest Scores of Eastern Polytech Athletes about abstinence from HIV/AIDS aimed at primary prevention strategy in minimizing the process of ageing {n=50}

VARIABLES	HIV/AIDS				A <sup>2</sup>		B <sup>2</sup>		SI		SI <sup>2</sup>	
	A		B		D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub> + D <sub>2</sub>		D <sub>1</sub> + D <sub>2</sub>	
	{Yes}	{No}	D <sub>1</sub>	D <sub>2</sub>					A	B	A	B
1	41	40	09	10	1681	1600	81	100	81	19	6561	361
2	48	47	02	03	2304	2209	04	09	95	05	9025	25
3	43	42	07	08	1849	1764	49	64	85	15	7225	225
4	46	45	04	05	2116	2025	16	25	91	09	8281	81
5	38	37	12	13	1444	1369	144	169	75	25	5625	625
6	35	34	15	16	1225	1156	225	256	69	31	4761	961
{n=6}	∑A = 496 {∑A} <sup>2</sup> = 246016		∑B = 104 {∑B} <sup>2</sup> = 10816		∑A <sup>2</sup> = 20742		∑B <sup>2</sup> = 1142		∑Si <sup>2</sup> =		41478	2278

Table 8: Knowledge of Test-retest Scores of Eastern Polytech Athletes about abstinence from Gonorrhoea aimed at primary prevention strategy in minimizing the process of ageing {n=50}

VARIABLES	GONORRHEA				A <sup>2</sup>		B <sup>2</sup>		SI		SI <sup>2</sup>	
	A		B		D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub> + D <sub>2</sub>		D <sub>1</sub> + D <sub>2</sub>	
	{Yes}	{No}	D <sub>1</sub>	D <sub>2</sub>					A	B	A	B
1	44	43	06	07	1936	1849	36	49	87	13	7569	169
2	48	47	02	03	2304	2209	04	09	95	05	9025	25
3	40	39	10	11	1600	1521	100	121	79	21	6241	441
4	38	37	12	13	1444	1369	144	169	75	25	5625	625
5	34	33	16	17	1156	1089	256	289	67	33	4489	1089
6	37	36	13	14	1369	1296	169	196	73	27	5329	729
{n=6}	∑A = 476 {∑A} <sup>2</sup> = 226576		∑B = 124 {∑B} <sup>2</sup> = 15376		∑A <sup>2</sup> = 19142		∑B <sup>2</sup> = 1542		∑Si <sup>2</sup> =		38278	3078

Table 9: Knowledge of Test-retest Scores of Eastern Polytech Athletes about abstinence from Syphilis aimed at primary prevention strategy in minimizing the process of ageing {n=50}

VARIABLES	SYPHILIS				A <sup>2</sup>		B <sup>2</sup>		SI		SI <sup>2</sup>	
	A		B		D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub>	D <sub>2</sub>	D <sub>1</sub> + D <sub>2</sub>		D <sub>1</sub> + D <sub>2</sub>	
	{Yes}	{No}	D <sub>1</sub>	D <sub>2</sub>					A	B	A	B
1	42	41	08	09	1764	1681	64	81	83	17	6889	289
2	47	46	03	04	2209	2116	09	16	93	07	8649	49
3	45	44	05	06	2025	1936	25	36	89	11	7921	121
4	36	35	14	15	1296	1225	196	225	71	29	5041	841
5	30	29	20	21	900	841	400	441	59	41	3481	1681

6	34	33	16	17	1156	1089	256	289	67	33	4489	1089
{n=6}	$\sum A = 462$ $\{\sum A\}^2 = 213444$		$\sum B = 138$ $\{\sum B\}^2 = 19044$		$\sum A^2 = 18238$		$\sum B^2 = 2038$		$\sum Si^2 =$		36470	4070
*Reliability (R = 0.99)												

Table 10: Knowledge of Njala Campus Athletes about abstinence from HIV/AIDS {n=150}

V.	ONE: Variables on HIV/AIDS	A {YES}				B {NO}					
			%	{X-X}	{X-X} <sup>2</sup>		%	{Y-Y}	{Y-Y} <sup>2</sup>		
1	Do you know that Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome {HIV/AIDS} as one of the diseases associated with unsafe sexual practices can be linked to development of an influenza-like illness or mononucleosis-like illness after exposure by athletes?	110	73.3	-2.5	6.25	40	26.7	2.5	6.25		
2	Has it occurred to you that abstaining from Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome {HIV/AIDS} as one of the diseases associated with unsafe sexual practices can minimize the speed of ageing process amongst athletes?	130	86.7	17.5	306.25	20	13.3	-17.5	306.25		
3	Are you aware that athletes exposed to Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome {HIV/AIDS} as one of the diseases associated with unsafe sexual practices suffer from fever, large tender lymph nodes, throat inflammation, rash, headache, and/or sores of the mouth and genitals?	100	66.7	-12.5	156.25	50	33.3	12.5	156.25		
4	Do you believe that diseases associated with unsafe sexual practices like Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome {HIV/AIDS} can speed up ageing process amongst athletes?	125	83.3	12.5	156.25	25	16.7	-12.5	156.25		
5	Do you know that Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome {HIV/AIDS} as one of the diseases associated with unsafe sexual practices can also be linked to Gastrointestinal symptoms such as nausea, vomiting or diarrhea?	95	63.3	-17.5	306.25	55	36.7	17.5	306.25		
6	Do you know that Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome {HIV/AIDS} as one of the diseases associated with unsafe sexual practices can be linked also with systemic symptoms such as sweating (particularly at night), chills, weakness, unintended weight loss and diverse psychiatric and neurological symptoms?	115	76.7	2.5	6.25	35	23.3	-2.5	6.25		
[n=6]	A {Yes}	Mean = 112.5 and Std. Dev = 12.5		$\sum A = 675$		$\sum [X-X]^2 = 937.5$		$\sum B = 225$		$\sum [Y-Y]^2 = 937.5$	
	B {No}	Mean = 37.5 and Std. Dev = 12.5									

Table 11: Knowledge of Njala Campus Athletes about abstinence from HIV/AIDS {n=150}

HIV/AIDS	D	D <sup>2</sup>
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VARIABLES	A {Yes}	B {No}	{A-B}	{A-B} <sup>2</sup>
1	110	40	70	4900
2	130	20	110	12100
3	100	50	50	2500
4	125	25	100	10000
5	95	55	40	1600
6	115	35	80	6400
			$\Sigma D = 450$	$\Sigma D^2 = 37500$
{n=6}	$\{\Sigma D\}^2 = 202500$	df = 5	*t = 6.708	c = 2.571

**Table 12: Knowledge of Njala Campus Athletes about abstinence from Gonorrhoea {n=150}**

NO.	TWO Variables on Gonorrhoea	A {YES}				B {NO}			
		{X}	%	{X-X}	{X-X} <sup>2</sup>	{Y}	%	{Y-Y}	{Y-Y} <sup>2</sup>
1	Do you know that Gonorrhoea {GR} as one of the diseases associated with unsafe sexual practices can be linked to vaginal discharge, lower abdominal pain, or pain with intercourse in women and inflammation of the penile urethra associated with a burning sensation during urinating and discharge from the penis in men?	135	90	25	625	15	10	-25	625
2	Has it occurred to you that preventing Gonorrhoea {GR} as a disease by abstaining from unsafe sexual practices can minimize the speed of ageing process amongst athletes?	140	93.3	30	900	10	6.7	-30	900
3	Are you aware that athletes exposed to Gonorrhoea as one of the diseases associated with unsafe sexual practices suffer from undue tiredness, skin lesions and joint infection {pain & swelling in the joints}?	100	66.7	-10	100	50	33.3	10	100
4	Do you believe that athletes exposed to Gonorrhoea as one of the diseases associated with unsafe sexual practices can speeds up their ageing process?	120	80	10	100	30	20	-10	100
5	Do you know that athletes exposed to Gonorrhoea as one of the diseases associated with unsafe sexual practices can be linked also to endocarditis of the heart and meningitis of the spine?	85	56.7	-25	625	65	43.3	25	625

6	Do you know that athletes exposed to Gonorrhoea, as one of the diseases associated with unsafe sexual practices can also be associated with prostate cancer?	80	53.3	-30	900	70	46.7	30	900
[n=6]	A {Yes}	Mean = 110 and SD = 23.3		ΣA = 660	Σ{X-X}² = 3250	ΣB = 240	ΣB = 46.7	ΣC = 30	Σ{Y-Y}² = 3250
	B {No}	Mean = 40 and Std Dev = 23.3							

Table 13: Knowledge of Njala Campus Athletes about abstinence from Gonorrhoea {n=150}

VARIABLES	Gonorrhoea		D {A-B}	D² {A-B}²
	A {Yes}	B {No}		
1	135	15	120	14400
2	140	10	130	16900
3	100	50	50	2500
4	120	30	90	8100
5	85	65	20	400
6	80	70	10	100
{n=6}	ΣD² = 176400		ΣD = 420	ΣD² = 42400
		df = 5	*t = 3.363	c = 2.571

Table 14: Knowledge of Njala Campus Athletes about abstinence from Syphilis {n=150}

NO.	THREE Variables on Syphilis	A {YES}		{X-X}	{X-X}²	B {NO}		{Y-Y}	{Y-Y}²
		{YES}	%			{NO}	%		
1	Do you know that Syphilis {SP} as one of the diseases associated with unsafe sexual practices; could be linked to a firm, painless, non-itchy skin ulceration?	130	86.7	19.2	368.64	20	13.3	-19.2	368.64
2	Do you believe that Syphilis {SP} as one of the diseases associated with unsafe sexual practices can speed up ageing process of athletes?	140	93.3	29.2	852.64	10	6.7	-29.2	852.64
3	Are you aware that athletes exposed to Syphilis {SP} as one of the diseases associated with unsafe sexual practices suffer from a diffuse rash, which frequently involves the palms of the hands and soles of the feet?	100	66.7	-10.8	116.64	50	33.3	10.8	116.64
4	Preventing Syphilis {SP} as a disease by abstaining from unsafe sexual practices; can this minimize the speed of ageing process of athletes?	120	80	9.2	84.64	30	20	-9.2	84.64

5	Do you know that gummas, neurological and cardiac problems are also symptoms of Syphilis {SP} disease associated with unsafe sexual practices?	95	63.3	-15.8	249.64	55	36.7	15.8	249.64
6	Do you also know that liver inflammation, kidney disease, joint inflammation, periostitis, inflammation of the optic nerve, uveitis and intestinal keratitis are all symptoms of Syphilis {SP} disease associated with unsafe sexual practices?	80	53.3	-30.8	948.64	70	46.7	30.8	948.64
	<b>A {Yes}</b> Mean = 110.8 and Std Dev = 20.9		$\Sigma A = 665$		$\Sigma(x-X)^2 = 2620.84$		$\Sigma B = 235$		$\Sigma(y-Y)^2 = 2620.84$
	<b>B {No}</b> Mean = 39.2 and Std Dev = 20.9								

Table 15: Knowledge of Njala Campus Athletes about abstinence from Syphilis {n=150}

VARIABLES	SYPHILIS		D {A-B}	D <sup>2</sup> {A-B} <sup>2</sup>
	A {Yes}	B {No}		
1	130	20	110	12100
2	140	10	130	16900
3	100	50	50	2500
4	120	30	90	8100
5	95	55	40	1600
6	80	70	10	100
{n=6}	$\{\Sigma D\}^2 = 184900$	df = 5	$\Sigma D = 430$ *t = 3.834	$\Sigma D^2 = 41300$ c = 2.571

## Discussion of Findings:

This study survey only looked at the knowledge of Njala Campus Athletes about abstinence from diseases associated with unsafe sexual practices such as Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome {HIV/AIDS}, Gonorrhoea {GR} and Syphilis {SP} aimed as primary prevention strategy in minimizing the process of ageing among athletes. Due to the growing efforts in slowing ageing as primary factor and extend healthy lifespan of athletes, Karp, et al. (2009) reported that, syphilis among the others is thought to have infected 12 million additional people

worldwide in 1999, with greater than 90% of cases in the developing world. After decreasing dramatically since the widespread availability of penicillin in the 1940s, the rate of infection has increased since the turn of the millennium in many countries.

The statistical tools of Dependent t-test {t}, standard deviation, mean, percentages, frequency distribution tables and figures were the scientific instruments used in comparatively analyzing and quantifying the results of the finding. The t-test results were scaled @ level of significance  $p < 0.05$ .

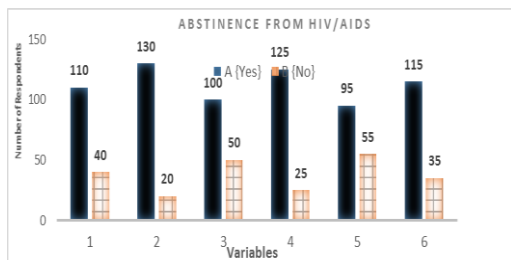


Figure 1: Knowledge of Njala Campus Athletes about abstinance from HIV/AIDS {n=150}

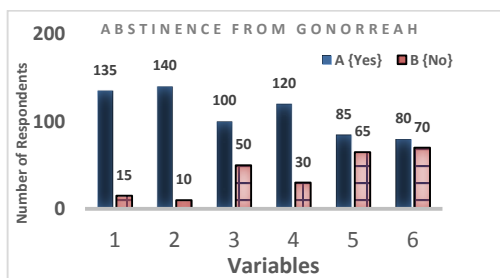


Figure 2: Knowledge of Njala Campus Athletes about abstinance from Gonorrhoea {n=150}

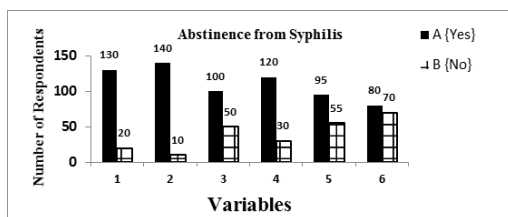


Figure 3: Knowledge of Njala Campus Athletes about abstinance from Syphilis {n=150}

Discussion: Analysis of results about abstinance from diseases associated with unsafe sexual practices such as Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome {HIV/AIDS}, Gonorrhoea {GR} and Syphilis {SP}, indicate a holistic significant differences as highlighted in the tables: table 11, table 13 and table 15, collectively i.e. {t-values of 6.708, 3.363 and 3.834} when scaled @  $p < 0.05$  in the

above analysis, which is very supportive of health education in terms of the knowledge and understanding of diseases and infirmities associated with unsafe sexual practices. The result of this finding is in line with the report from CDC, (2006) which state that, in most sexually transmitted diseases, the risk of infection can be reduced significantly by the correct use of condom and can be removed almost entirely by limiting sexual activities to a mutually monogamous relationship with an uninfected person. Workowski, et al. (2015) emphasized that; gonorrhoea in particular could be prevented with the correct use of condom. However, Karp, et al. (2009) in their report concluded that the increase in the rate of infection has been attributed partly to increased promiscuity, prostitution, decreasing use of condoms, and unsafe sexual practices among men who have sex with men. In support of the above finding in terms of knowledge displayed by Njala Campus Athletes regarding hazers associated with unsafe sexual practices, Walker, (2007) report states that; the most frequent mode of transmission of HIV/AIDS in particular is through sexual contact with an infected person. The report further states that majority of all transmissions worldwide occur through heterosexual contacts {i.e. sexual contacts between people of the opposite sex} which however, the pattern of transmission varies significantly among countries. In the same vein, Ademola, (2011) in another finding concluded that, unsafe sexual practice as one of the health risk behaviours of athletes (elite) could also be avoided by periodically putting in

place regulations and measures, such as organized adequate health practice intervention programmes for athletes. In the final discussion, as clearly pointed out in the respective tables i.e. table 10, table 12 and table 14 and figures 1, 2 and 3 above, the quantitative results show that a highly positive and influential number of participants (Njala Campus Athletes) had in their cognitive possession, knowledge about abstinence from diseases associated with unsafe sexual practices such as Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome {HIV/AIDS}, Gonorrhoea {GR} and Syphilis {SP}, aimed as primary prevention strategy in minimizing the process of ageing as referenced above in their separate percentage marks, mean ranks and standard deviation scores.

**Conclusion:** Concluding therefore, this study was surveyed with the aim of evaluating supportive realities about Njala Campus Athletes knowledge relative to abstinence from diseases associated with unsafe sexual practices such as Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome {HIV/AIDS}, Gonorrhoea {GR} and Syphilis {SP}, aimed at primary prevention strategy in minimizing the process of ageing and to tailor appropriate recommendations in a supportive direction, favouring that athletes can aged actively and healthily. In the final conclusion, the above findings have holistically pictured that Njala Campus Athletes indeed demonstrated in their responsive quantitative views a leading professional experience about primary

prevention strategic knowledge of minimizing the process of ageing with special reference to abstinence from diseases associated with unsafe sexual practices aimed at primary prevention strategy in minimizing the process of ageing as referenced above in their frequency distribution tables, t-values, percentage responses and mean scores.

**Recommendations:** This study therefore recommends that availability and accessibility of training workshops and seminars in health education courses with preferential attention to abstinence from diseases and infirmities associated with unsafe sexual practices such as Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome {HIV/AIDS}, Gonorrhoea {GR} and Syphilis {SP} be given to Njala Campus Athletes by trained and qualified personnel with requisite qualification within the rank and file of the university. And that Njala Campus Athletes be subjected to clinical test readily and frequently prior to any intercollegiate competitions.

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**Conflict of interests:**

The author declared no conflict of interests regarding the publication of this manuscript.

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