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ROLES OF BACKGROUND CHARACTERISTICS IN HIV AND ALCOHOL USE PREVENTION AMONG SCHOOL LEARNERS: THE HAPS PROJECT

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ABSTRACT

HIV and alcohol prevention programmes to delay sexual initiation and alcohol use by learners have been shown to be effective interventions in high schools. However, the interplay of the interventions and the background characteristics of learners in preventing sexual initiation and alcohol use have not been examined. In this study, we examine the contribution of background characteristics of learners in HIV and alcohol prevention programme. Data were drawn at two time points from a cohort of 1259 and 1076 grade 9 learners. Generalized linear mixed models were used to predict the effects of background characteristics on alcohol consumption and sexual initiation. The results show that alcohol consumption increased from 34.6% to 39.9% between the two points among the learners. Between the two time points, prevalence of sexual intercourse rose from 31.1% to 37.7%. Background characteristics such as increasing age, being a male, absenteeism from school, importance of religion and average grade point predicted alcohol use. Sexual intercourse was significantly associated with increasing age, being a male, absenteeism from school and importance of religion. The study concludes that HIV and alcohol prevention strategy targeting learners should take serious consideration of their background characteristics for a more effective intervention programme.

Keywords: Alcohol, HIV, sexual risk behaviours, learners, South Africa

INTRODUCTION

Sub-Saharan African has limited experiences with alcohol and HIV prevention programmes among the youth. Despite the fact that sub-Saharan African is the most affected region by HIV, few countries have initiated HIV prevention programmes among youth (Morojele & Ranchod, 2011; Sani, Abraham, Denford, & Ball, 2016). The most important outcomes of intervention programmes were the needs to address a spectrum of interpersonal, cultural, structural factors

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underlying adolescents alcohol use and HIV risk behaviour (Harrison, Newell, Imrie, & Hoddinott, 2010; Morojele et al., 2013). Of concern is the review of existing alcohol and sexual risk prevention programmes were limited (Morojele & Ranchod, 2011), and characteristics of successful interventions were not documented (Harrison et al., 2010). In addition, evaluation of intervention content and characteristics of successful intervention programmes on alcohol use and sexual risk behaviour have shown mixed results (Scott-Sheldon, Walstrom, Harrison, Kalichman, & Carey, 2013; Harrison et al., 2010; Mukoma et al., 2009).

Consumption of alcohol among South African adolescents is characterised by binge and /or heavy episodic drinking (Morojele & Ramsoomar, 2016; Reddy et al., 2013; Seggie, 2012), which has implications for sexual risk behaviour and HIV infection amongst the youth (Scott-Sheldon et al., 2013). The scourge of HIV in South African society has necessitated intervention and prevention strategy that targets school learners mainly because alcohol and substance use are the main drivers of risky sexual behaviour among high school learners in South Africa. In this era of escalated knowledge of sexuality, HIV prevention programme has become the main intervention strategy focussing on high school learners. Skilled-based intervention has been rolled out in schools to equip learners to deal with challenges associated with indulging in alcohol use and risky sexual behaviour. These programmes were multifaceted and well designed to address factors that expose learners to health risks.

Previous youth intervention programmes have highlighted the need for school-based programmes for high school learners. School environment is perceived as the most accessible venue for dissemination of health information and ideal for knowledge exchange network (Flisher & Klepp, 2009). Review of school-based intervention programmes have documented substantive success in plummeting early sexual initiation and alcohol use (Harrison et al., 2010; Sani et al., 2016). However, researchers have critiqued school-based intervention programmes in South African societies on some of the following grounds. South African high schools have fidelity challenges, high level of staff and students absenteeism (Karnell, Cupp, Zimmerman, Feist-Price, & Bennie, 2006), violence and many school-level issues (Ahmed, Flisher, Mathews, Mukoma, & Jansen, 2009; Burton, 2008; Human-Vogel & Morkel, 2017) militating against learning and programme intervention. In addition, most of the schools where the intervention programmes were rolled out do not have boarding facilities (Cupp et al., 2008). Thus, raising a concern in achieving the objectives of school-based interventions programme. While the school based intervention programme have been effective to some extent, shortfalls due to after-school activities can be augmented through valuable information on background characteristics of the learners (Patrick, Schulenberg, & O'Malley, 2016).

UNISA Bureau Market Research, (2012) noted that intervention to adolescents' alcohol, substance abuse and subsequent risky sexual behaviour in South Africa should be addressed through educational programmes. They further emphasised that this educational programme should be a joint activity of the schools and the homes of the adolescents. This is because the local communities have influence on

substance abuse dynamics. They concluded that substance use and risky behaviour may not be addressed properly and effectively if all spheres of society are not involved. Since the existing intervention programme do not actively involve participation of the community in addressing alcohol and substance abuse, background characteristics of the learners remain the proxy for assessment.

Effective school-oriented intervention programmes from the western world have been adopted by South Africa high schools. However, given the socio-cultural differences between the west and Africa, the importance of background characteristics of the learners may have expediting effect on HIV and alcohol prevention intervention programmes (Cupp et al., 2008). Furthermore, school based skilled-oriented intervention can be effective on formative work that is built on background and cultural relevance of the recipients (Cupp et al., 2008).

Substance abuse and HIV prevalence among teenagers is a public health concern which socio-demographic determinants may account for a wide spectrum of inhibitory variations in harm reduction communications. Studies have shown that socio-cultural factors play diverse roles in preventing alcohol, substance use and risk sexual behaviour in societies. For instance, religion has an effect on socio-cultural factors that increase or decrease the risk of sexually transmitted infection in the society (Eriksson, Lindmark, Haddad, & Axemo, 2014; Ochillo, Van Teijlingen, & Hind, 2017). Eriksson et al., (2014) found that religious programme accounted for over four-fifth of pre-marital sexual abstinence among young people of age 15 to 24 years old in KwaZulu-Natal. Poverty which exposes youth to risky behaviours is still widespread in Southern African societies (Pascoe et al., 2015; Plüddemann, Flisher, McKetin, Parry, & Lombard, 2012). Risk behaviours initiated as adolescents are often perpetuated into adulthood with dependence problem (Mason et al., 2010; McCambridge, McAlaney, & Rowe, 2011; Velleman, 2009). These demographic factors are often neglected in school-based substance use and sexual risk behaviour intervention programmes. The aim of the study was to clarify the effects of socio-demographic variables in HIV and alcohol prevention programmes in South Africa. The findings would improve school intervention programmes and offer considerable variation in learners needs.

METHOD

HIV and Alcohol Prevention in Schools (HAPS) is an integral prevention programme to delay onset of sexual initiation (Kirby, Barth, Leland, & Fetro, 1991) and Amazing alternative programme to prevent alcohol use in US (Perry et al., 2000). HAPS project was implemented at 8 high schools in Pietermaritzburg, the second largest city in Kwazulu-Natal Province. The schools had similar characteristics in terms of language, comparable school fees, no boarding facilities and co-educational system. The schools were randomly assigned to intervention and control groups comprising 4 schools each. The aim of the programme was to inculcate pertinent facts about consequences of alcohol and risky sexual behaviour on the learners. The intervention programme had 15-unit curriculum of which 40% and 60% of the contents dealt with alcohol related issues and reducing risky sexual activities respectively. Standard life

orientation classes supplemented with information on alcohol and HIV were offered to the control groups. Role plays were used to develop techniques for resisting peer pressures to either drink alcohol or have sex.

After the baseline data were collected, subsequent data were drawn from a cohort of 1259 and 1076 grade 9 learners of age range 13 to 18 years old. Second and third data collection were assessed at 6 months and 12 months respectively. Data collected on the background characteristics of the learners were age, gender, socioeconomic status measured on the frequency of hunger in the family in the last month before the survey, learners grade point average, future educational aspirations, numbers of times absent from school in the past one month and on importance of religion. The outcome variables were measured on two items: ever consumed alcohol and ever had sexual intercourse. Learners were asked to answer either ''yes" or "no'' to "have you ever consumed alcohol?''. On the question, "have you ever had sexual intercourse?'' Learners were to answer either "yes" or "no". At the baseline assessment, there were no differences between the intervention and the control groups.

Descriptive statistics were used to process the independent and outcome variables. Generalized linear mixed models (GENLIN) were used to adjust for longitudinal associations of the variables after data were restructured. Binary logistic regressions were used to predict the effects of the intervention and background characteristics on ever had sex and alcohol consumption among the learners. Data processing was carried out using IBM SPSS version 25.

RESULTS

Table 1 shows that distribution of the individuals by the number of observations in the study sample. Of the 2638 observation among the grade 9 learners, 47.2% received intervention programme. Distribution by age shows an inverted u-shaped. Slightly over half (55.1%) of the learners were males. Over half (52.0%) indicated that their educational ambition was to have higher degree, whereas less than a quarter (21.4%) aspire to have at most matric certificate. Over two-thirds (77.4%) reported average grade points of 50 or more in terms of academic performance. Nearly half (49.1%) have never been absent from school in the past one month. About 40.9% have experienced lack of food in the homes several times in the past one month. As expected, two-thirds (67.2%) of the learners stated that their religion is important in their lives.

Consumption of alcoholic and experience of sexual intercourse

Figures 1 and 2 show the patterns of alcohol consumption and engaging in sexual intercourse respectively among the grade 9 learners. The results show that at first wave 34.6% of the learners had consumed alcohol which then increased to 39.9% at the second wave. Similarly, 31.1% of the learners had experienced sexual intercourse at the first wave. The proportion of learner that had experienced sexual intercourse increased to 37.7% at the second wave.

Table 2 shows the association between alcohol consumption and background characteristics of the learners. Based on the reported alcohol consumption, the intervention group did

Table 1. Distribution of grade 9 learners by the number of observations

Characteristics	Number of observations	Percent
Treatment		
Intervention	1244	47.2
Control	1394	52.8
Current Age[a]		
13	77	3.3
14	454	19.5
15	666	28.5
16	555	23.8
17	376	16.1
18+	206	8.8
Gender[a]		
Male	1286	55.1
Female	1049	44.9
Educational aspiration[a]		
=<Matric	500	21.4
Diploma/Degree	621	26.6
Higher Degree	1214	52.0
Average grade point[a]		
<50	529	22.6
50-69	1137	48.7
70+	670	28.7
Absenteeism[a]		
Never	1148	49.2
Once	490	21.0
Multiple times	697	29.9
No food at home		
Never	1560	59.1
Multiple times	1078	40.9
Religion importance		
Least important	864	32.8
Very important	1774	67,2
Total	2638	100.0

[a]Observations may not add up to 2638 due to missing values

not show significant difference compared to those in control group. All the background characteristic showed significant association with consumption of alcohol. Consumption of alcohol increased consistently with age. The proportion of males (45.6%) reporting consumption of alcohol is nearly double that of their female (26.4%) counterparts. Learners whose educational aspiration was to obtain higher degree and those who had average grade points of at least 70 had the lowest percentages (32.9% and 31.9%) of reporting alcohol consumption. Alcohol consumption increased consistently with the reported number of times the learner was absent from school in the past one month. Also,

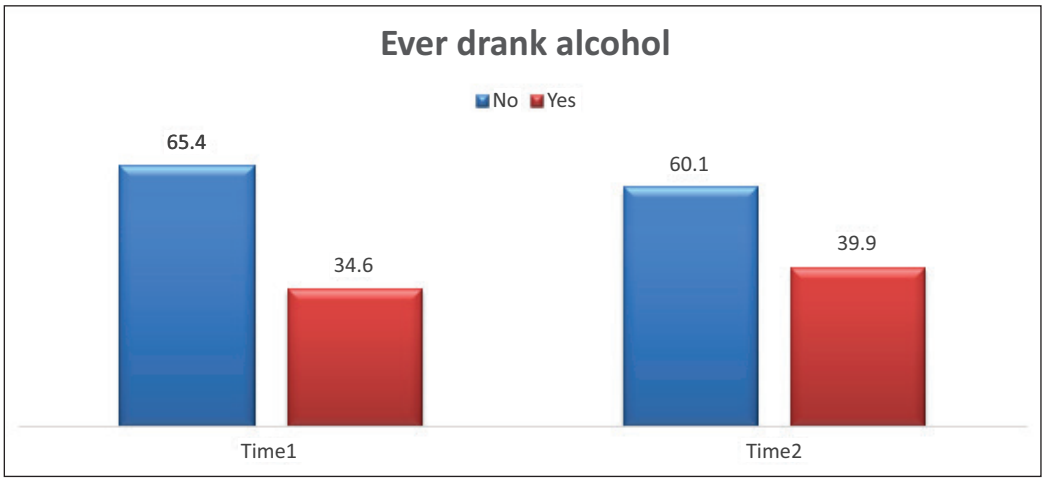

Figure 1. Ever consumed alcohol among the grade 9 learners

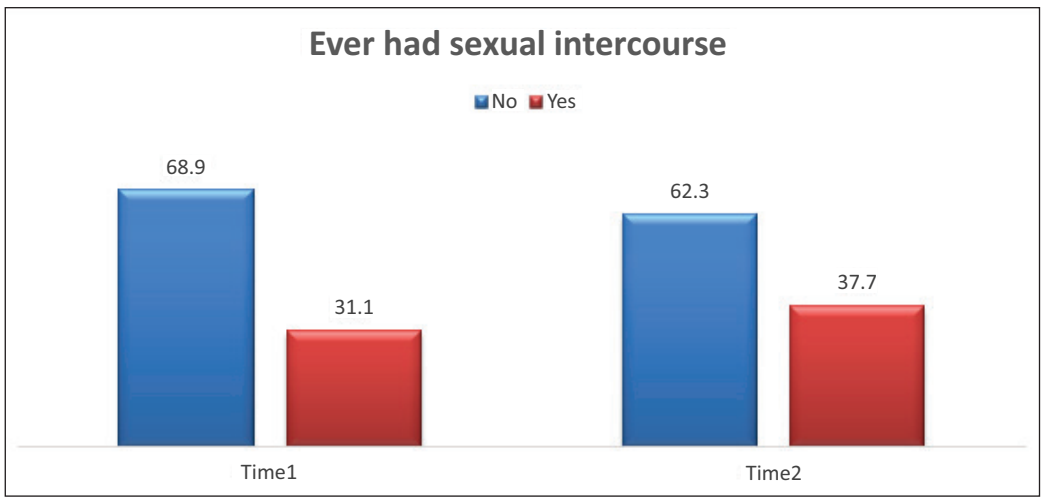

Figure 2. Ever had sexual intercourse among the grade 9 learners

learners who had experienced hunger in the family in the last month had higher percentage (42.2%) of reporting alcohol consumption than those who never lacked food (34.4%). Compared to learners who stated religion to be least important, learners who reported that religion is important in their life had lower levels of alcohol consumption.

Table 3 presents the distribution of sexual experiences by background characteristics. There is no statistical difference between the intervention group and the control group in reporting engaging in sexual intercourse. Significant associations were observed between engaging in sexual intercourse and learners background characteristics. As expected, reporting engaging in sexual intercourse increase with age among the learners. Compared to females, males were more likely to report having sexual intercourse. A third (30.1%) of the learners whose educational

Table 2. Distribution of learners on status of alcohol consumption by background characteristics

Variables	N (Observation)	No % (N)	Yes %(N)	X2; P value
Treatment				2.4; p=0.122
Intervention	1087	64.7(703)	35.3(384)	
Control	1244	61.6(766)	38.4(478)	
Current Age (years)				144.1; p= 0.000
13	77	77.9(60)	22.1(17)	
14	454	75.6(343)	24.4(111)	
15	662	71.9(476)	28.1(186)	
16	555	58.0(322)	42.0(233)	
17	375	49.3(185)	50.7(190)	
18+	206	39.8(82)	60.2(124)	
Gender				91.7; p= 0.000
Male	1284	54.4(698)	45.6(586)	
Female	1046	73.6(770)	26.4(276)	
Educational aspiration				18.4; p= 0.000
<= Matric	498	59.6(297)	40.4(201)	
Diploma/Degree	620	57.7(358)	42.3(262)	
Higher Degree	1212	67.1(813)	32.9(399)	
Average grade point				31.9; p= 0.000
< 50	529	52.9(280)	47.1(249)	
50-69	1135	64.8(735)	35.2(400)	
70+	667	68.1(454)	31.9(213)	
Absenteeism				56.1; p=0.000
Never	1148	69.7(800)	30.3(348)	
Once	488	62.7(306)	37.3(182)	
2+	694	52.3(363)	47.7(331)	
No food at home				
Never	1559	65.6(1023)	34.4(536)	13.6; p= 0.009
Many	772	57.8(446)	42.2(326)	
Religion importance				28.2; p= 0.000
Least important	560	53.6(300)	46.4(260)	
Very important	1771	66.0(1169)	34.0(602)	

ambition was to have higher degree had experienced sexual intercourse. Also, a third (30.7%) of learners who stated their average grade points to be 70 and above had engaged in sexual intercourse. Learners with records of absenteeism from school and experiences of food shortage in the past month had highest percentages of reporting sexual intercourse. Compare to learners who stated religion to be least important in their life, reporting religion to be very important showed lower proportions of engaging in sexual intercourse.

Modelling of alcohol consumption and sexual intercourse by learners' background characteristics

The results of GENLIN analysis, showing associations between alcohol

Table 3. Distribution of learners on ever had sexual intercourse by background characteristics

Variables	N (Observation)	No % (N)	Yes %(N)	X2; P value
Treatment				0.2; p=0.655
Intervention	1090	65.4(713)	34.6(377)	
control	1246	66.3(826)	33.7(420)	
Current Age (years)				268.5; p=0.000
13	77	85.7(66)	14.3(11)	
14	454	83.3(378)	16.7(76)	
15	666	75.7(504)	24.3(162)	
16	555	63.4(352)	36.6(203)	
17	376	44.1(166)	55.9(210)	
18	206	35.4(73)	64.6(133)	
Gender				84.9; p= 0.000
Male	1286	57.7(742)	42.3(544)	
Female	1049	75.9(796)	24.1(253)	
Educational aspiration				18.6; p= 0.000
<= Matric	500	61.8(309)	38.2(191)	
Diploma/Degree	621	61.2(380)	38.8(241)	
Higher Degree	1214	69.9(849)	30.1(365)	
Average grade point				10.9; p= 0.004
< 50	529	60.3(319)	39.1(210)	
50-69	1137	66.5(756)	33.5(381)	
70+	670	69.3(464)	30.7(206)	
Absenteeism				42.8; p=0.000
Never	1148	71.7(823)	28.3(325)	
Once	490	65.3(320)	34.7(170)	
2+	697	56.8(396)	43.2(301)	
No food at home				10.6; p= 0.001
Never	1560	68.1(1063)	31.9(497)	
Many	776	61.3(476)	38.7(300)	
Religion importance				9.5; p= 0.002
Least important	562	60.5(340)	39.5(222)	
Very important	1774	67.6(1199)	32.4(575)	

consumption and background variables are presented in table 4. The control group were 1.3 times more likely than the intervention group to have consume alcohol. Tendency to consume alcohol increased with learners age. The odds of consuming alcohol were reduced by 49.0% for females compared to their male counterparts. Compared to the learners who had an average grade point of below 50, those scoring 70 and above were less likely to have consumed alcohol. Learners who were absent from school were 78.6% more likely to have consume alcohol relative to those who were never absent from school in the past one month. Reporting religion to be very important in their lives correlated

Table 4. Background variables of learners explaining alcohol consumption and engaging in sexual intercourse

Variables	Ever consumed alcohol		Ever had sexual intercourse	
	Odds ratio	95% CI	Odds ratio	95% CI
Treatment				
Control	1.295**	1.081-1.552	1.107	0.918-1.335
Intervention (ref)	1.000		1.000	
Current Age	1.374***	1.275-1.480	1.686***	1.555-1.828
Gender				
Female	0.510***	0.422-0.616	0.559***	0.461-0.677
Male (ref)	1.000		1.000	
Educational aspiration				
<= Matric (ref)	1.000		1.000	
Diploma/Degree	1.104	0.854-1.426	1.059	0.809-1.385
Higher Degree	0.907	0.719-1.142	0.863	0.678-1.100
Average grade point				
< 50 (ref)	1.000		1.000	
50-69	0.783	0.607-1.010	1.128	0.863-1.473
70+	0.740**	0.590-0.928	1.002	0.792-1.267
Absenteeism				
Never (ref)	1.000		1.000	
Once	1.254	0.995-1.582	1.243	0.977-1.582
2+	1.786***	1.443-2.210	1.571***	1.263-1.955
No food at home				
Never (ref)	1.000		1.000	
Many	1.143	0.943-1.384	1.054	0.865-1.283
Religion importance				
Least important (ref)	1.000		1.000	
Very important	0.615***	0.500-0.756	0.740**	0.597-0.918
Intercept	0.295***	0.187-0.467	0.094***	0.057-0.154

*p < 0.05; **p < 0.01; *** p < 0.001. ref= reference category, CI= confidence interval

with 38.5% reduced odds of consuming alcohol. However, educational aspiration and experiences of hunger in the family did not significantly predict alcohol consumption.

Table 4 further revealed association between sexual intercourse and learners background characteristics. As expected, engaging in sexual intercourse increase with age. Females were less likely than their male counterparts to have engaged in sexual intercourse. The odds of engaging in sexual intercourse increased by 57.1% for learners who were absent from school for more than two times in the past month. Compared to learners who stated that religion had least importance in their lives, reporting religion as very important showed 26.0% reduction in the odds of engaging in sexual intercourse. However, the intervention programme, educational aspiration, average grade points, experiences of hunger in the family were not significantly associated with sexual intercourse.

DISCUSSION

The aim of the study was to examine the bearing of background characteristics in HIV and alcohol prevention programme among high school learners. The results demonstrated that the intervention alone did not portray a clear difference compared to the control group at bivariate analysis. However, at higher level analysis the intervention programme prevented alcohol use initiation. This suggest that the intervention programme operated through the background characteristics to mediate low alcohol use. The prevalence of alcohol use and sexual intercourse among the learners are worrisome given that abstinence is promoted for people below the age of 18 years old in South Africa. In agreement with previous studies in London (Mason et al., 2010; Bolland et al., 2016; MacArthur et al., 2012), alcohol use and sexual initiation increase with age. Early alcohol use and sexual initiating are both risk behaviours that can translate to alcohol disorder and contracting of sexually transmitted infections including HIV. Learners who consistently engage in behaviours that may reinforce the overburdened HIV scourge has multiple negative effects on health, education and economy of South Africa.

The findings that male learners were more likely to engage in sex and consume alcohol than their female counterparts is consistent with previous reports in America (Woolf-King & Maisto, 2011). Relationship between alcohol use and sexual risk behaviour is fluid such that alcohol enhances maleness, sexual encounters, sexual experience and often a defence for irresponsible behaviour such as risky sex. Considering the cultural setting of the study, risky sexual behaviour is common to the Zulu-speaking people which is often interwoven in traditional appropriateness of casual and multiple sexual partners for men. It may be explained by the traditional norms on alcohol which promote casual sex as a masculine behaviour. Taken together, male learners may be at greater risk of developing alcohol-related problems and susceptible to sexually transmitted infection than female learners. This does not suggest that females are protected, as sexual activities in South African in educational institutions often takes concurrent patterns.

The results revealed that multiple absenteeism from school predicted both engaging in sex and alcohol use which is parallel to findings in Norway (Ingul, Klöckner, Silverman, & Nordahl, 2012). Absenteeism from school would mean that the learners were not in school to receive prevention and intervention messages designed for schools. Thus, absenteeism from school may have partially jeopardized the chances of delivering basic risk-reduction and risk prevention instruction. Prevention and intervention programme may be more effective if there is a strategy that offset truancy among the learners. This finding reiterates the need for Goal 25 of the South African Department of Basic Education's Action Plan for 2011 to 2014 which emphasises using the school as a location to promote children's access to services including public health services and psycho-social support. Previous studies (Flisher, Townsend, Chikobvu, Lombard, & King, 2010; Kearney, 2008; Le Roux & Mokhele, 2011) have noted truancy as a serious issue in South African high schools. Absenteeism will in no doubt impact negatively on learner's education and health matters.

The findings echoed the importance of religion as a veritable practice in

preventing sexual initiation and alcohol use. This is in line with studies among adolescents in South Africa (Amoateng, Kalule-Sabiti, & Arkaah, 2014; Eriksson et al., 2014) and USA (Dickens, Jackman, Stanley, Swaim, & Chavez, 2018; Patrick & Schulenberg, 2014; Salas-Wright, Vaughn, Maynard, Clark, & Snyder, 2017). Religion advocates for sexual abstinence and frowns at alcohol use among teenagers. Religion being important in the life of the study population would mean that the only strategy for HIV prevention is abstinence which parallels secular interventions. Given that religion is a belief that operates at individual and societal levels, integrating it in intervention programme may maximize desired effects.

CONCLUSION

Alcohol use and early sexual initiation were not expected to be static in the study population despite the intervention programme. Teenagers experimenting with alcohol and sex side by side with intervention programme are both inevitable developmental dimensions. However, the findings of the study suggest the need for additional inhibitory factors to be considered in designing school-based intervention programme. The results of the study are drawing attention of programme managers and researchers to design preventive programmes that are inclusive of the background characteristic of the recipient. Interventionist need to think critically on interventions that are tailored for males given their unprecedented involvement in risky behaviour at very tender age. Prevention and intervention programmes should consider incorporating religious components as it continues to play a crucial role in delaying alcohol use and early sexual initiation. Strategies that ensures regular school attendance, will augur well for school-based HIV and alcohol use intervention programmes in South African society.

REFERENCES

Ahmed, N., Flisher, A. J., Mathews, C., Mukoma, W., & Jansen, S. (2009). HIV education in South African schools: The dilemma and conflicts of educators. *Scandinavian Journal of Public Health*, *37*(2_suppl), 48-54. https://doi.org/10.1177/1403494808097190

AJ Scott-Sheldon, L., Walstrom, P., Harrison, A., C Kalichman, S., & P Carey, M. (2013). Sexual risk reduction interventions for HIV prevention among South AfricanYouth: a meta-analytic review. *Current HIV Research*, *11*(7), 549-558.

Alex Mason, W., Hitch, J. E., Kosterman, R., McCarty, C. A., Herrenkohl, T. I., & David Hawkins, J. (2010). Growth in adolescent delinquency and alcohol use in relation to young adult crime, alcohol use disorders, and risky sex: a comparison of youth from low-versus middle-income backgrounds. *Journal of Child Psychology and Psychiatry*, *51*(12), 1377-1385.

Amoateng, A. Y., Kalule-Sabiti, I., & Arkaah, Y. J. (2014). The effect of socio-demographic factors on risky-sexual behaviours of adolescents in the North West Province of South Africa. *African Population Studies*, *28*(1), 487-498.

Bolland, K. A., Bolland, J. M., Tomek, S., Devereaux, R. S., Mrug, S., & Wimberly, J. C. (2016). Trajectories of

Adolescent Alcohol Use by Gender and Early Initiation Status. *Youth & Society*, *48*(1), 3-32. https://doi.org/10.1177/0044118X13475639

Burton, P. (2008). Dealing with school violence in South Africa. *Centre for Justice and Crime Prevention (CJCP) Issue Paper*, *4*, 1-16.

Cupp, P. K., Zimmerman, R. S., Bhana, A., Feist-Price, S., Dekhtyar, O., Karnell, A., & Ramsoomar, L. (2008). Combining and adapting American school-based alcohol and HIV prevention programmes in South Africa: The HAPS project. *Vulnerable Children and Youth Studies*, *3*(2), 134-142.

Dickens, D. D., Jackman, D. M., Stanley, L. R., Swaim, R. C., & Chavez, E. L. (2018). Alcohol consumption among rural African American and White adolescents: The role of religion, parents, and peers. *Journal of Ethnicity in Substance Abuse*, *17*(3), 273-290. https://doi.org/10.1080/15332640.2016.1179155

Eriksson, E., Lindmark, G., Haddad, B., & Axemo, P. (2014). Young People, Sexuality, and HIV Prevention Within Christian Faith Communities in South Africa: A Cross-Sectional Survey. *Journal of Religion and Health*, *53*(6), 1662-1675. https://doi.org/10.1007/s10943-013-9753-7

Flisher, A. J., & Klepp, K.-I. (2009). School-based HIV/AIDS prevention in Sub-Saharan Africa. *Scandinavian Journal of Public Health*, *37*(2_suppl), 4-6. https://doi.org/10.1177/1403494809105409

Flisher, A. J., Townsend, L., Chikobvu, P., Lombard, C. F., & King, G. (2010). Substance use and psychosocial predictors of high school dropout in Cape Town, South Africa. *Journal of Research on Adolescence*, *20*(1), 237-255.

Harrison, A., Newell, M.-L., Imrie, J., & Hoddinott, G. (2010). HIV prevention for South African youth: which interventions work? A systematic review of current evidence. *BMC Public Health*, *10*(1), 102.

Human-Vogel, S., & Morkel, J. (2017). Teacher and learners' belief in a just world and perspectives of discipline of Grade 4 - 8 learners in South African schools. *Educational Studies*, *43*(3), 343-353. https://doi.org/10.1080/03055698.2016.1277136

Ingul, J. M., Klöckner, C. A., Silverman, W. K., & Nordahl, H. M. (2012). Adolescent school absenteeism: modelling social and individual risk factors. *Child and Adolescent Mental Health*, *17*(2), 93-100.

Karnell, A. P., Cupp, P. K., Zimmerman, R. S., Feist-Price, S., & Bennie, T. (2006). Efficacy of an American Alcohol and HIV Prevention Curriculum Adapted for Use in South Africa: Results of a Pilot Study in Five Township Schools. *AIDS Education and Prevention*, *18*(4), 295-310. https://doi.org/10.1521/aeap.2006.18.4.295

Kearney, C. A. (2008). School absenteeism and school refusal behavior in youth: A contemporary review. *Clinical Psychology Review*, *28*(3), 451-471. https://doi.org/10.1016/j.cpr.2007.07.012

Kirby, D., Barth, R. P., Leland, N., & Fetro, J. V. (1991). Reducing the risk: Impact of a new curriculum on sexual risk-taking. *Family Planning Perspectives*, 253-263.

Le Roux, C. S., & Mokhele, P. R. (2011). The persistence of violence in South Africa's schools: In search of solutions. *Africa Education Review*, *8*(2), 318-335.

MacArthur, G. J., Smith, M. C., Melotti, R., Heron, J., Macleod, J., Hickman, M., … Lewis, G. (2012). Patterns of alcohol use and multiple risk behaviour by gender during early and late adolescence: the ALSPAC cohort. *Journal of Public Health*, *34*(suppl_1), i20–i30. https://doi.org/10.1093/pubmed/fds006

McCambridge, J., McAlaney, J., & Rowe, R. (2011). Adult consequences of late adolescent alcohol consumption: a systematic review of cohort studies. *PLoS Medicine*, *8*(2), e1000413.

Morojele, N. K., & Ramsoomar, L. (2016). Addressing adolescent alcohol use in South Africa. *SAMJ: South African Medical Journal*, *106*(6), 551-553. https://doi.org/10.7196/samj.2016.v106i6.10944

Morojele, N. K., & Ranchod, C. (2011). Review of Interventions to Reduce Alcohol Use-Related Sexual Risk Behaviour in Africa. *African Journal of Drug and Alcohol Studies*, *10*(2). Retrieved from https://www.ajol.info/index.php/ajdas/article/view/76890

Morojele, N., Myers, B., Townsend, L., Lombard, C., Plüddemann, A., Carney, T., … Nkosi, S. (2013). Survey on Substance Use, Risk Behaviour and Mental Health among Grade 8-10 Learners in Western Cape Provincial Schools, 2011. Cape Town: South African Medical Research Council.

Mukoma, W., Flisher, A. J., Ahmed, N., Jansen, S., Mathews, C., Klepp, K.-I., & Schaalma, H. (2009). Process evaluation of a school-based HIV/AIDS intervention in South Africa. *Scandinavian Journal of Public Health*, *37*(2_suppl), 37-47.

Ochillo, M. A., Van Teijlingen, E., & Hind, M. (2017). Influence of faith-based organisations on HIV prevention strategies in Africa: a systematic review. *African Health Sciences*, *17*(3), 753-761.

Pascoe, S. J. S., Langhaug, L. F., Mavhu, W., Hargreaves, J., Jaffar, S., Hayes, R., & Cowan, F. M. (2015). Poverty, Food Insufficiency and HIV Infection and Sexual Behaviour among Young Rural Zimbabwean Women. *PLOS ONE*, *10*(1), e0115290. https://doi.org/10.1371/journal.pone.0115290

Patrick, M. E., & Schulenberg, J. E. (2014). Prevalence and Predictors of Adolescent Alcohol Use and Binge Drinking in the United States. *Alcohol Research: Current Reviews*, *35*(2), 193-200.

Patrick, M. E., Schulenberg, J. E., & O'Malley, P. M. (2016). High School Substance Use as a Predictor of College Attendance, Completion, and Dropout: A National Multicohort Longitudinal Study. *Youth & Society*, *48*(3), 425-447. https://doi.org/10.1177/0044118X13508961

Perry, C. L., Williams, C. L., Komro, K. A., Veblen-Mortenson, S., Forster, J. L., Bernstein-Lachter, R., … McGovern, P. (2000). Project Northland High School Interventions: Community Action to Reduce Adolescent Alcohol Use. *Health Education & Behavior*, *27*(1), 29-49. https://doi.org/10.1177/109019810002700105

Plüddemann, A., Flisher, A. J., McKetin, R., Parry, C. D., & Lombard, C. J. (2012). Methamphetamine use and sexual risk behavior among high school students in Cape Town, South Africa. *Journal of Child & Adolescent Substance Abuse*, *21*(2), 181-191.

Reddy, S. P., James, S., Sewpaul, R., Sifunda, S., Ellahebokus, A., Kambaran, N. S., & Omardien, R. G. (2013).

Umthente Uhlaba Usamila: the 3rd South African National Youth Risk Behaviour Survey 2011. http://hdl.handle.net/20.500.11910/2487

Salas-Wright, C. P., Vaughn, M. G., Maynard, B. R., Clark, T. T., & Snyder, S. (2017). Public or private religiosity: which is protective for adolescent substance use and by what pathways? *Youth & Society*, *49*(2), 228-253.

Sani, A. S., Abraham, C., Denford, S., & Ball, S. (2016). School-based sexual health education interventions to prevent STI/HIV in sub-Saharan Africa: a systematic review and meta-analysis. *BMC Public Health*, *16*(1), 1069.

Seggie, J. (2012). Alcohol and South Africa's youth. *SAMJ: South African Medical Journal*, *102*(7), 587-587.

Velleman, R. (2009). Influences on how children and young people learn about and behave towards alcohol, 64.

Woolf-King, S. E., & Maisto, S. A. (2011). Alcohol use and high-risk sexual behavior in Sub-Saharan Africa: a narrative review. *Archives of Sexual Behavior*, *40*(1), 17-42.