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Factors associated with inconsistent participation in the ‘Rise Young Women’s clubs’ Social and Behaviour Change Communication Programme

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Factors associated with inconsistent participation in the 'Rise Young Women's clubs' Social and Behaviour Change Communication Programme



By

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A research report submitted to the faculty of Health Sciences, University of the Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the degree of Master of Science in Epidemiology and Biostatistics.

June 2020

DECLARATION

I, Caroline Mudara declare that this research report is my own work, compiled under supervision of Dr Sumaya Mall and Dr Edmore Marinda. The report is being submitted in partial fulfilment of the requirements for the degree of Master of Science in Epidemiology in the field of Epidemiology & Biostatistics at the University of the Witwatersrand, Johannesburg. This research has not been submitted previously for any degree or examination to any other institution. The research has been orally presented at PHASA 2017 Conference.



Caroline Mudara

Date: June 2020 in Johannesburg

I certify that this study has the approval of the Human Research Ethics committee of the University of the Witwatersrand, Johannesburg, South Africa. The study ethics number is M170338



Caroline Mudara

Date: June 2020 in Johannesburg

PRESENTATION ARISING FROM RESEARCH PROJECT

The research was orally presented at the PHASA Conference, held between the 4Th to 7th September 2017 in Johannesburg. The theme of the conference was "A Global Charter for the Public's Health: Implications for Public Health Practice in South Africa". The presentation was done in the Health Promotion parallel session on 6th September 2017.

ABSTRACT

Background: Despite several efforts to reduce incidence of HIV infection among adolescent girls and young women in the Sub-Saharan African region, new infections persist in this group. The Rise Young Women's Club is a peer group initiative implemented across South Africa aiming to create a platform where adolescent girls and young women work on community projects as teams, encouraging and supporting each other particularly in preventing HIV for those who are not infected, and supporting girls and young women who are already HIV positive and have sexual and reproductive health concerns. However, little is known of factors associated with participating inconsistently in this initiative.

Objectives: To identify factors associated with inconsistent participation in the Rise Young Women's Clubs.

Methods:

This secondary data analysis used Rise Young Women's Clubs' endline data from participants who joined the clubs between 2014 and 2016. The 2635 study participants who were young women and girls aged 15 – 24 years old resided in KwaZulu Natal, Free State, Mpumalanga, Eastern Cape and North West provinces.

Factors examined included socio demographic factors, sexual risk behaviour factors, access to support factors and club/ intervention related factors. Descriptive statistical methods were used to define the socio demographic, sexual risk behaviour, access to support and club/ intervention related characteristics of the study sample. Logistic regression analytical methods were used to identify the factors associated with inconsistent participation.

Results: The total number of participants for the study was 2635, with 581 (22.0%) classified as inconsistent participants and 2054 (78.0%) as consistent participants. Participants were mostly from rural areas (67.4%).

There was no evidence to suggest that age or having children was associated with inconsistent participation in club activities, (Age: adjusted odd ratio (aOR) = 1.057, 95% confidence interval

[0.982 - 1.137], p-value = 0.141), (Having children: adjusted odds ratio (aOR = 1.312, 95% confidence interval [0.840 – 2.049], p-value = 0.232).

Compared to those who had watched most of the Rise Talk Show episodes (the reference), participants who did not know about the program or had watched a few episodes, had lower odds of participating inconsistently. However, there is no evidence to support association with inconsistent participation as the p-values are greater than 0.05.

Participants reporting that their clubs were managed satisfactorily had higher odds of participating consistently than those reporting that their clubs were managed badly.

Participants who had a peer to talk to about HIV had lesser odds of participating inconsistently in club activities compared to those who did not have any one to talk to (aOR = 0.599, 95% confidence interval [0.449 – 0.798], p-value < 0.001).

Conclusion:

This study has yielded interesting and important findings about participation in the Rise Young Women's clubs. A fundamental issue to participating less inconsistently in such initiatives is optimal and supportive management. Attention should be given to managing clubs efficiently so that adolescent girls and young women will be encouraged to participate.

KEYWORDS: adolescent, peer-support, HIV, HIV interventions, participation

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LIST OF ABBREVIATIONS

AGYW – Adolescent girls and young women

ART – Antiretroviral Therapy

HIV – Human immune-deficiency virus

IPV – Intimate partner violence

SRH – Sexual reproductive health

STI – Sexually transmitted infections

TB – Tuberculosis

1 Introduction

1.1 Background Information

Sexual reproductive health (SRH) encompasses comprehensive well-being in relation to sexuality. SRH refers to a range of health issues such as family planning, prenatal and postnatal care for mother and child and prevention, diagnosis and treatment of sexually transmitted infections (STI) which include HIV(1). Access to sexual reproductive health gives women the necessary information to address the risk of contracting or spreading HIV(2, 3).

Adolescent girls and young women who are at a critical stage of their psychological, social and cognitive development in Sub Saharan Africa face a multitude of challenges with regard to their SRH (4, 5). A number of studies have compared SRH challenges between male and female adolescents suggesting that girls may be at higher risk of IPV (6-9). Further, as adolescence is a critical time of psychological, cognitive and sexual development, there may be a risk of premature and or coercive sexual debut, unwanted pregnancy, HIV and STI infection (10, 11). Not only are there challenges to preventing HIV infection among young women, there are also SRH awareness needs for those who are already HIV positive (10, 12, 13) including reducing unwanted pregnancies (11) and promoting ongoing sexual health (14, 15).

There have been several social and biological interventions (16-19) that attempt to address these needs of young women who are at risk of HIV as well as the SRH concerns of women who are already HIV positive. In an acknowledgement of the pertinent public health issue of addressing sexual and reproductive health needs of adolescent girls and young women, this chapter presents the burden of HIV/AIDS among adults and adolescents and prevention initiatives being implemented.

1.1.1 The global burden of HIV/AIDS among adults and adolescents

Globally, HIV is a major public health issue with about 36.7 million people infected (20). Close to 70% of infections were recorded in the sub-Saharan African region in 2015 suggesting that the burden of infections disproportionately affects this region (20).

According to the Global AIDS update of 2016 overall HIV incidence declined between 2001 and 2015 (21). Despite this decline, there are challenges to alleviating HIV infection among adolescent girls and young women in low and middle-income countries (LMIC) as noted by high HIV incidence in this age group. In the Sub-Saharan African region, girls and young women particularly those age 15 - 24 years, are at the epi-centre of the HIV/AIDS epidemic (21, 22). There are several factors, usually more prevalent in conditions of poverty, that pre-dispose young women and girls to HIV infection including experience of sexual violence (23-25), dropping out of school, early marriage, entering into transactional and inter-generational sexual relationships (7), lack of sexual and reproductive health care and information (2, 3, 26), alcohol and substance abuse (27, 28), being an orphan or migrant and early sexual debut (29).

According to the UNAIDS update 2017, South Africa has the largest population of people living with HIV, estimated to be 7.1 million, with approximately 58% being women age 15 years and over. Approximately 270 000 new infections (150 000 women aged 15 and over) in 2016 were noted, which was a 49% decline when compared to 2010 (21).

It is important to note that a large number of adolescent girls in South Africa who are HIV positive may have been infected earlier on in life. ART was introduced in the South African public sector later than other African countries and it is likely that some of these adolescent girls may have been infected through mother to child transmission during pregnancy, birth or during breastfeeding , (10, 13, 30).

1.1.2 The burden of HIV/AIDS in South Africa.

In South Africa, the prevalence of HIV infection is 12.7%. The country's HIV epidemic disproportionately affects young women and girls with an estimated 30% of new infections occurring among girls and young women between the ages of 15 and 24 years (20, 31). The majority of infections in South Africa are acquired through heterosexual transmission. According to the 2015 National Antenatal Sentinel HIV and Syphilis survey report, published in 2017, pregnant women had an estimated HIV prevalence of 30.8% in 2015 (32). Results from the Fifth South African national HIV prevalence, incidence, behaviour and communication survey, 2017 suggest high sex disproportionate HIV prevalence in young women compared to young men (33, 34). HIV prevalence in women aged 15 – 19 years was 5.8%, increasing to 15.6% among women age 20-24 (33), which is three times higher than in males of the same age group (33-35).

In general adolescents transition to adulthood is characterised by increased risk-taking behaviours coupled with difficulties in negotiating condom use, instant gratification and peer pressure in decision-making (5). Consideration of these exposures in relation to HIV risk in adolescent girls and young women is an upstream focus on social patterns and structures rather than on individual risk (5). Several observational epidemiological studies have examined social economic, structural, biological, and behavioural factors that heighten the vulnerability of girls and young women to HIV infection (36-38) compared to boys including the area of sexual debut. In some cases these factors are inter-related (5).

There are several biological, structural, social economic and behavioural factors that heighten the vulnerability of girls and young women to HIV infection (36-38):

Biological factors

There are several biological factors that could place adolescent girls and young women at higher risk of HIV infection. First, as mentioned above, the adolescent period is a sensitive period of brain development and puberty where there may be risk of new, impulsive and risk behaviors (5). Further, the biological make up of women makes them more susceptible to HIV infection and other sexually transmitted diseases due to the larger exposed mucosal surface of the vagina (39).

Structural risk factors

Structural risk factors include social, economic and political factors that obstruct prevention such as stigma associated with acquiring or possessing condoms (40, 41) puts women in a vulnerable position when negotiating for condom use. A qualitative study done in Zimbabwe investigating the perceived susceptibility of HIV and barriers to intended condom use among adolescents, showed that perceived lack of social support for condom use was a determinant of inconsistent condom use among women (42). Another qualitative study conducted in rural areas of England identifies embarrassment and how others will negatively regard them as barriers to accessing condoms (40). Gender norms that privilege men over women such as gender based discrimination and norms that promote sexual ignorance and submissiveness for women puts them at risk of acquiring HIV (43, 44). Women are less likely to have access to resources and advanced education and are more likely to financially depend on men for survival (43, 44).

Social economic risk factors such as being in a child headed household are associated with poverty and concerns about livelihood leading to failure to complete high school due to financial constraints (36). Family responsibilities such as providing basic food and shelter and taking care of the sick, and lack of social capital, negatively affects the rational impacting sexual decisions of an adolescent girl or young woman in a child headed household (36, 45). A study conducted by Pascoe and colleagues examined the association between HIV infection risk among young women and socio-economic status in rural Zimbabwe. The study provided evidence that economic needs and food insufficiency were associated with the adoption of unsafe sexual behaviours in young women (45).

Behavioural factors

The complexities of transition from adolescence to adulthood characterised by increased risk-taking behaviours such as early sexual debut in young women coupled with difficulties in negotiating condom use, instant gratification and peer pressure in decision-making are some of the behavioural risk factors (4, 5). A study conducted on United States high school girls, investigating the association between early sexual debut and risk behaviours in youths suggested that early sexual debut was associated with subsequent sexual risk behaviour (46). These results are supported by those of Stöckl and colleagues which suggests risky sexual behaviours are a contributing factor to increase in HIV infection risk in young women in Sub Saharan Africa (29).

Substance abuse preceding sexual risk behaviour increases the risk of poor decision making when engaging in sexual relations (7, 27, 47). A study by Mola and colleagues suggested an association between inconsistent or low condom use and alcohol consumption in adolescents and school children in Brazil(48). These results are corroborated by Rehm and colleague in an experimental study that investigated the impact of alcohol consumption on engaging in unprotected sex by adolescents (27).

Parallel qualitative research has also explored intersecting issues of gender and sexual behaviour (37, 49). A study by Stern and colleagues used sexual history narratives to investigate how South African men and women experience and attribute meaning to their first sexual encounter and how that contributes to their sexual reproductive health practices. In this study it was noted that men tended to attribute the sexual debut to peer pressure in order to gain a higher social status, while women felt pressured by their partners (37). This gives the perception of men being

sexually controlling and aggressive (37, 49). A study conducted in Uganda examining the association between sexual empowerment and STI status of women suggests that sexual empowerment does not protect women from sexually violent and controlling partners. The study suggests sexual health promotion to address negative masculine attitudes and roles that promote sexually violent behaviours (49).

Sexual partners who are 5-10 years older than the girls or women might already be infected (7, 37). A study by MacPhail and colleagues that explored various social explanations for the high infection rate among South African women aged 13 – 24 years, suggest that the high rates are due to women having sexual relationships with men who are on average five years older than they are (50). This age gap presents power dynamics in the relationship causing the women to be vulnerable to intimate partner violence (23, 51). Dunkle and colleagues, in a study that investigated gender based violence, relationship power dynamics and the risk of HIV infection in South African women, suggest that women in relationships with violent and controlling partners are at increased risk of getting HIV as the men are more likely to be imposed or be involved in risky sexual practices (51).

1.1.3 Sexual and reproductive health issues for HIV negative and HIV positive adolescent girls and young women

Access to HIV testing services is one of the major sexual reproductive health issues that affects adolescents (52, 53). This is worsened by stigma, discrimination and strict laws and practices punishing their sexual practices, behaviour or circumstances (52). Laws such as age of consent to HIV testing presents barriers to HIV testing (53, 54). Service provider attitudes presents barriers to adolescents' access to health services. Studies indicate that adolescents tend to avoid health facilities with unfriendly or judgemental healthcare workers (55). Lesedi and colleagues conducted a cross sectional study to determine the Botswana youth perception regarding sexual reproductive health services and attitude of health providers towards youth seeking SRH services. The study suggests that a third of the youths perceived that health providers were judgemental and unfriendly (55).The attitude of the health providers presents a barrier even for those that are positive as they will not get the support they need.

1.1.4 Current biological and social HIV prevention initiatives for adolescents being implemented globally.

There has been attention to HIV prevention research and the best possible interventions for girls and young women (56-59). These include both biomedical (58, 60) and social HIV prevention measures (61, 62) with several studies in low and middle-income countries including South Africa, examining their effectiveness in preventing new infections.

Research has suggested that a combination of biomedical, behavioural, and structural interventions provides effective HIV prevention programming (63, 64). Uptake of dual protection to prevent sexually transmitted diseases and unwanted pregnancies, is being encouraged for this target group (57, 62) due to the large numbers of new STI infections and high rates of unwanted pregnancies (65).

There are several HIV biomedical and social prevention strategies targeting girls and young women that are being implemented globally (62, 64). Biomedical interventions, combining clinical and behavioural approaches include use of microbicides (66, 67), correct use of condoms(64, 68), treatment as prevention (63, 69), post exposure prophylaxis (PEP) and pre exposure prophylaxis(PreP) (18, 19), and large scale HIV vaccine trials are also currently ongoing in South Africa.

Behavioural interventions such as sexual reproductive health information, counselling and psycho-social support, cash transfer programmes, aim to reduce behavioural risks that make individuals more susceptible to becoming infected, or infecting others HIV (70-72). Behaviour risks include multiple sexual partners, non-adherence to treatment (69, 73), sharing of needles among drug users and inconsistent use of condoms (68, 70, 71).

Structural interventions are policies that aim to change the social, economic and political environments in which risk behaviour occurs (68, 74). Structural interventions facilitate performance of existing motives to avoid HIV transmission or make practicing risk behaviour difficult (74, 75). Structural interventions include addressing violence against women, transforming legal norms such as marriage, inheritance and property rights; promoting women empowerment by advancing education, increasing opportunities of employment and reducing stigma and discrimination (43, 76).

1.1.5 Current HIV biological and social prevention initiatives for adolescents in South Africa.

In South Africa, there are a number of HIV awareness campaigns and programmes targeting the youth, advocating for increased use of condoms, uptake of HIV testing and counselling (HTC) and medical male circumcision (77, 78). The programmes are in line with the UNAIDS 90-90-90 strategy whose targets are to have (i) 90% of people living with HIV knowing their HIV status, (ii) 90% of all people who are infected with HIV, aware of their HIV status receiving HIV treatment and (iii) 90% of those on treatment having suppressed viral load (20). Some of the main intervention programmes are described:

Determined, Resilient, Empowered, AIDS-free, Mentored, and Safe women (DREAMS) programme

The DREAMS programme funded by the United States President's Emergency Plan for AIDS relief (PEPFAR), the Bill and Melinda Gates Foundation and Girl effect, in partnership with the South Africa department of Social Development and community-based organisation was launched in 2015. There are several programmes under the umbrella of DREAMS. These include programmes aimed at empowering AGYW, strengthen their families, mobilise their communities for change and reduce the HIV risk of their male sexual partners (79). The DREAMS programmes are a combination of peer-led, facilitator led, healthcare worker led and participation types of interventions (79). South Africa is one of the 10 African countries implementing this programme. The programme is aimed at empowering adolescent girls and women in reducing new HIV infections through the creation of opportunities for entrepreneurship, cash transfers, providing educational subsides and HIV awareness by combining socio-economic and HIV prevention approaches (80).

The DREAMS core package is a collection of interventions that address the vulnerability of adolescent girls and young women to risk factors such as HIV, gender based violence, limited access to secondary education and lack of access to economic opportunities (81).

Love life

LoveLife, is a youth leadership, life skills and sexuality awareness programme that promotes healthy lifestyles and social agency among South African teenagers since 1999. It engages youth

aged 12 – 25 years through outreach and support programmes implemented by peer educators known as ground BREAKERs (82). LoveLife motivates people below 15 years to ensure they remain HIV negative and youth above 15 years to recognise and confront their elevated risk of HIV infection (83). The programme has several activities targeting the complex individual, social and structural factors that make youth more susceptible to high-risk behaviour. LoveLife combines nationwide multimedia campaigns, community-level outreach, clinical and psychosocial services in order to reach a wider target population (84).

Soul City Institute

The Soul City Institute for Health and Development Education Communication (SCI), based in Johannesburg, South Africa has over several years addressed HIV prevention in young people through social and behaviour change communication strategies. SCI programmes use different types of communication channels such as mass media and social media combined with policy advocacy and social mobilisation to communicate information that will initiate a change in the way of thinking leading to change of behaviour, attitude and social norms (85, 86). The programmes aim to build social cohesion in individuals and collective agency and resilience to achieve gender equality in areas of SRH rights and eradication of gender-based violence. The programmes provides evidence that can influence people to make heathier decisions for themselves and the people around them (86).

Initiatives combining social and structural SBCC HIV prevention includes a programme where adolescent girls and young women aged between 15 - 24 years are encouraged to form peer support clubs (87). In these peer support clubs the adolescent girls and young women discuss and are taught about condom usage, prevention of mother to child transmission (PMTCT) and pre and post exposure prophylaxis by their peers through after school activities, social media and television messaging (87).

2 Literature Review

In this literature review, articles about HIV prevention in relation to interventions for women and adolescent girls from several databases including Pubmed, the Cochrane Library, Science Direct and Global Health were accessed. The search terms: *adolescent HIV prevention, girls, women, adolescent sexual behaviour, peer education, HIV interventions, social and behavioural communication* were used to facilitate this literature search. Articles about the sexual and reproductive health needs of adolescent girls and young women as well as studies of needs for HIV positive adolescent girls and young women have been sourced under the themes: Adolescent sexual reproductive health and perinatal HIV adolescents.

2.1 Behavioural prevention

Literature suggests that the prevention efforts being widely promoted for young women include abstinence, having one sexual partner, use of condoms and voluntary counselling and HIV testing. However, some of the issues negatively affecting the relevance and adequacy of these efforts include patterns of sexual networking, age differences between sexual partners and characteristics of the partnership (88-90).

Implementation of abstinence messages in schools was meant to encourage young women to delay their sexual debut (91). The success of this intervention is not conclusive with research suggesting that it may only postpone the age of infection but may not impact on reducing rates of infection (92, 93). A study by Cleland and colleagues, aimed to assess trends of a set of behaviours which reduces the rate of HIV transmission, which included abstinence, contraceptive use and condom use from 132800 women from 18 African countries. The results suggested women were more likely to use condoms or contraception than abstain from sexual intercourse (91). Abstinence until marriage was a PEPFAR supported programme which encouraged abstinence as a preventative measure against HIV. However, the programme demonstrated limited impact in changing behaviours and withheld vital information such as use of condoms to reduce risk (94). However, the intervention was found to be key in enabling

young women to complete education, have better economic opportunities, and acquire skills to negotiate for safer sexual intercourse.

Intergenerational and transactional sexual relationships are common in sub-Saharan Africa (95) and have been shown to increase the probability of infection among women (50, 96). Older men may likely be HIV positive already and engaging in concurrent sexual relationships (93).

Several studies demonstrate increase in use of male condoms by young people (91), enabled by consistent awareness campaigns and free access to condoms (85, 93). The type or nature of relationship strongly influences the use of condoms. Some studies suggest that condom use becomes less acceptable or desirable in long-term relationships when there is love, trust or familiarity (97-99). However, there are obstacles to condom use, which include stigma, negative beliefs (100), association of condom use with promiscuity and sexually transmitted diseases (101) and peer pressure (102, 103).

Voluntary counselling and HIV testing has been associated with reducing risky sexual behaviour (104). Knowing ones status is important for young women as they are primary users of antenatal services and will need to protect their child from infection (36, 105, 106). Support and encouragement from peers, partners and parents influence young women to seek HIV testing services (107-109). A study done in Kenya by Neary and colleagues suggested that support from peers, partners, parents and health workers influenced the increased uptake of HIV testing by adolescents and young adults (107).

2.2 Structural factors

Structural factors such as poverty, power and migration are recognised as crucial in influencing the risk of HIV infection. Due to social and economic constraints that limit adolescent girls and young women's access to productive resources, sexual intercourse becomes a good to be exchange with basic goods or material goods that improve their social status (6, 23, 51, 110).

Poverty and limited economic opportunities negatively affecting rural and geographically isolated areas influence migration in search for better opportunities (111). This causes partners to separate for prolonged periods, disrupting social cohesion and the stability of sexual intercourse

with only the spouse (112). Research suggests that the effects of mobility and migration on HIV epidemic is complex and dynamic (113, 114).

Gender based violence due to the intersection of age with sex, is a demonstration of power imbalance in relationships (115). In the context of HIV, gender based violence renders young women vulnerable to infections and limits their ability to protect themselves (51, 116). South African social and cultural norms expects hegemonic masculine men to be in control in any intimate relationship with the women desiring demonstration of this masculinity (117) which may include physical or emotional abuse or being "disciplined". Adolescent girls and young women who are financially and emotionally vulnerable are more likely to be in intimate relationships with these hegemonic masculine men. This gender power inequity presents situations where the adolescent girls and young women reluctantly complies and tolerate violent and harmful sexual behaviours such as accepting their partner having other sexual partners (117). Figure 2.1 illustrates the connection between gender power inequity, intimate partner violence and HIV/AIDS.

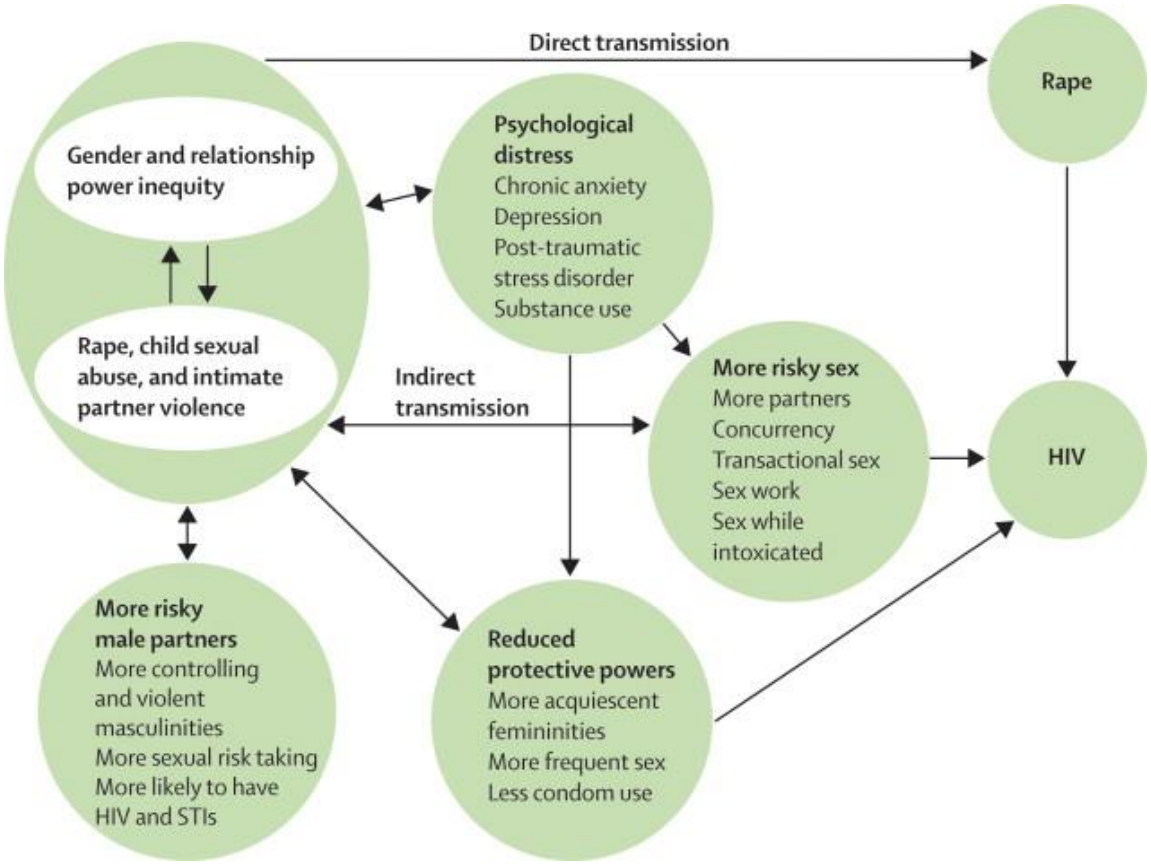

Figure 2:1:Connection between intimate partner violence, gender power inequities and HIV/AIDS
Source: https://www.sciencedirect.com/science/article/pii/S014067361060548X#fig1

2.3 Structural HIV prevention strategies for girls and young women

2.3.1 In School based interventions

The school environment is a logistically convenient setting for delivering programs that address adolescent sexual health (118, 119). While many school-based interventions are designed to discourage adolescents from using drugs and alcohol, few address HIV prevention through comprehensive sexual health education due to cultural norms or social acceptability (94, 120). School based interventions have shown evidence that comprehensive sexual reproductive health education is effective at reducing STIs, delaying early sexual debut, and reducing teen pregnancy as compared to promoting abstinence-only education (94, 121, 122).

In a study by Taggart and colleagues which assessed the effectiveness of a theatre based comprehensive sexual reproductive health intervention in facilitating discussions of HIV prevention among high school students, the intervention was shown to have significant impact in addressing HIV awareness, knowledge and attitudes (123). Similar studies including one that investigated the pre and post levels of knowledge on HIV based on a comprehensive health education intervention programme also noted the significant positive changes in behaviour and HIV related knowledge (124).

School based education programmes have also been used as primary prevention strategy against child sexual abuse. The study by Walsh and colleagues which assessed the evidence of whether school based education programmes were effective in improving protective behaviours and knowledge on sexual abuse, showed evidence of improvement in protective behaviours and knowledge and increase in the odds of disclosure (125).

2.3.2 Peer or group-based health interventions

Peer education provides vulnerable youth with psychosocial support as well as information and decision-making skills especially for those in poverty who have limited social and material resources (126). Peer education offers a non-judgemental space for young people to interact and discuss issues and topics that are not easily addressed with adults. It aims to deliver prevention education and psychosocial support that is more user-friendly and affordable than that provided

by professionals (127). In the evaluation of the Vhutshilo peer-led intervention, peer interventions were well organised and supported to provide vulnerable youths with opportunities to develop psychosocial skills and change norms, attitudes and behaviours (126).

Peer education based approaches have been identified as a means of increasing efficacy of HIV prevention programs (119, 128, 129). This approach was found to be effective due to peers having the same socio-cultural identity, share the same social networks and similar challenges in adopting safer sexual behaviours (130, 131). Information on behaviour change from peers is more appropriate especially for the young sexually active population as it enhances credibility and increases trust (132) .

A number of studies have found similar results with regard to peer education. For example, a study by Timol and colleagues concurred with studies done by Warwick and colleagues and Swartz and colleagues. These studies suggested that peer education improved knowledge on HIV transmission and adolescents' self-worth in their relationships and, contributed to the prevention of HIV transmission among adolescents (133, 134). The longitudinal study assessed the effect of a structured, time-limited, curriculum-based, peer-led educational programme on first-year high school learners compared to learners who have not received such an intervention in the Western Cape, South Africa (28). A study done in Ethiopia, evaluated the effectiveness of peer education on change in risky sexual behaviours among secondary school students aged between 16-19 years old. The quasi-experimental study suggested that students in the intervention group adopted safer sexual behaviour patterns and had higher levels of sexual reproductive health knowledge. In addition to these changes, the students were interested in getting to know their HIV status. However, the study highlights the need to allocate appropriate resources such as mentors, relevant and appropriate materials to make the intervention effective (135, 136). An evaluation of a schools programme showed that peer education could contribute to the delay on onset of sexual activity in secondary school learners. The school programme aimed to provide HIV/AIDS information, establish peer groups and support for learners (137). With regards to improvement in sexual reproductive health knowledge and decrease in risky sexual behaviours, there are some studies that report limited effectiveness of peer education in these aspects (120, 138) and change in behaviour being most challenging (118, 124).

Although peer education has the potential to improve HIV knowledge and sexual behaviours, there are some programmes that had disappointing outcomes i.e. no changes in the incidence of

HIV, and suggested that much attention needs to be given to open communication between target populations, community stakeholders and the agencies providing the intervention (139, 140). This would make it easier to understand the local realities or social dynamics and norms to facilitate appropriate contextual support for programme effectiveness.

2.3.3 Community based interventions

Group or community-based health interventions can bring positive behaviour change as well as minimize stigmatization of HIV with communities around the globe (51). Women lack positive social support due to the rise in gender-based violence especially in developing countries hence the need for community-based health interventions (51, 52). Support groups especially in disadvantaged communities like remote rural areas, are scarce and there are limited data and information for these areas (53). One of the challenges to change may be easy access to internet technology, which allows easy access to information (54). Although Community group membership assists young women in avoiding HIV transmission, the results could be a reflection of selective consistent participation by individuals who already have safer lifestyles (141).

2.3.4 Use of digital technology in HIV prevention and health promotion.

Technology-based interventions include simple text-based reminders (142), computer-based counselling interactions (eHealth) (143, 144), smartphones applications (mHealth) (145), television and interactive voice response technology (telehealth)(144). A range of activities implemented by technology-based interventions, are used to target individuals or populations at risk, particularly adolescents or even the public. Prevention efforts involving outreach and education activities advocating condom use, contraception use (146), mental health outcomes management (depression, suicidal thoughts, and stress management), reduction in substance abuse and other risk-reduction strategies can easily be implemented (145). Technologies can facilitate HIV voluntary testing and counselling (including partner notification), linkage to care and treatment.

The use of social media or digital technology has been increasing in public health and health promotion due to its ability to remove geographic and physical access barriers (147-149). However, social media has the potential to increase health inequities for people who do not have

access to internet or do not have gadgets to access social media. A research study conducted by Welch and colleagues which aimed to assess the effects of interactive social media interventions on health outcomes, behaviour change and health equity, concluded that social media interventions were effective for promoting health equity (147).

2.3.5 Income generating interventions and vocational Skills training

With poverty, unemployment and lack of economic opportunity shaping HIV risk structural factors (150), structural level interventions are increasingly seen as crucial to effectively reducing HIV transmission (151). Income generating interventions and vocational training are approaches aimed to increase people's ability to generate income, be financially independent, secure livelihoods and having negotiating power within relationships (150), assisting in addressing structural factors associated with HIV risk. These approaches are usually conducted in supportive groups, which provide opportunities to build social capital, increase knowledge, access to resources and also provide a convenient platform for HIV education and skills training (150). Some studies assessing the impact of these interventions on health and quality of life for people living with HIV (152, 153) highlight improved economic self-sufficiency in addition to providing psychosocial support and increase sense of dignity and self-worth (154). Conditional or unconditional cash transfers interventions offer alternative models for reducing poverty and increasing economic opportunity (155-157).

In some instances, income generation interventions may unintentionally place participants in risky situations such as gender-based violence, putting them in greater risk for HIV. In the SHAZ! study, adolescent girls qualitatively highlighted issues of compromised personal safety while transporting goods to selling points, including harassment by men and police, and unsafe accommodation or secure places to store money against theft (158). Research has raised concerns that women's empowerment may exacerbate intimate partner violence by challenging gender norms and provoking conflict between partners (159).

2.3.6 Implementation issues affecting interventions effectiveness

HIV prevention programmes are aimed at halting the transmission of HIV in order to protect individuals and their community from acquiring the virus and having the burden of the disease.

The prevention programmes initially focused on the ABC (Abstinence, Be faithful, use a condom) approach (160). However, in the mid-2000s it was evident that the interventions were not effective as there was an increase in new HIV infections (161) and that interventions needed to take into account socio cultural, legal, economic, political and other contextual factors (63). For interventions to be effective it is essential to ensure that all stakeholders, including donors, community or cultural leaders, civil society organisations and target group are involved in the planning process in order to gain acceptability of the intervention (63). Identifying the population at risk, modes of transmission, whether the implementation area is rural or urban, social, legal and cultural drivers is also important in making interventions effective (161).

2.4 Adolescent girls and Young women participation in HIV prevention programmes

Participation in HIV prevention programme of adolescent girls and young women is very critical for the impact of any intervention programme. Research on participation in HIV prevention programmes has mainly been focused on voluntary testing and counselling (162-164) and HIV vaccine trials. Information on factors that influence adolescent girls and young women's decision making about participating in HIV related programmes can be drawn from research conducted on HIV vaccine trials and voluntary testing and counselling programmes. A study by Hutchinson and colleagues that examined the patterns of voluntary counselling and testing service utilization in Eastern Cape South Africa, found a positive association with age, socio economic status, proximity to service and to levels of HIV/AIDS stigma (162). In this same study, the analysis showed low utilisation of the voluntary counselling and testing service (162).

Adolescents considering participation in any HIV related programme may perceive personal and social barriers that prevent such participation.

Stigma towards people participating in HIV related programmes has been a major problem that negatively affects the impact of prevention programmes (165, 166). A study by Nhamo-Murire and colleagues which measured the effects of forming local community groups in Eastern Zimbabwe, in reducing stigma showed improved knowledge of HIV and acceptance of people living with HIV and increased uptake of HIV testing hence the reduction of stigma (167). Another study by Campbell and colleagues investigated the impact of social context on a peer education programme in a peri-urban South African community. The study identified stigma, pathologisation of sexuality (especially girls) and community having negative impressions of

young people as contextual dimensions that undermine participation and effectiveness of HIV prevention programmes (168)

Adolescents are more likely to be motivated to participate in settings that are less formal unlike in school settings. A qualitative study by Campbell and colleagues explored factors which facilitate young South African people above 12 years to participate in HIV related programmes and the study participants highlighted being in a group with people of the same age reduced isolation and also receiving an incentive motivated them to attend the groups (169).

2.5 Problem Statement

Research suggests that belonging to a community or peer group and functionality of the group, has a protective effect on HIV transmission by reducing premature and unsafe sexual behaviour. (141, 170, 171). However, low and varied consistency in participation by adolescent girls and young women may at times lead to the interventions being less effective (141). Several research questions could be generated to understand what factors predict inconsistent participation in HIV prevention programmes by adolescent girls and young women. These variations in participation could be attributed to many issues including lack of financial motivation (172), poor acceptability of the programme by the community and the participants, lack of parental permission to participate (173, 174), other competing responsibilities like household chores, lack of child care during programme sessions, design and how the programme is implemented.

2.6 Justification

This study seeks to understand factors that motivate adolescent girls and young women to not participate consistently in programmes that empower them to prevent them from getting infected with HIV. Research has shown that peer-based approaches were more effective channel of sensitising adolescent girls and young women in preventing HIV infection (119, 128). The Rise Young Women's Clubs intersects several crosscutting areas relating to HIV prevention including gender disparities, empowerment of adolescent girls and young women, HIV prevention in young women and girls and the content of prevention activities. Understanding factors that are associated with young women's participation in the Rise Young Women's Clubs will assist in designing and implementation of programmes that are more suited for the targeted group.

Development of relevant materials and activities in addition to a conducive programme environment will keep the HIV prevention programmes targeting AGYW interesting and motivate participation.

2.7 Aim

The main aim of this study is to examine factors associated with inconsistent participation of members of Soul City Rise Young Women's Clubs, aged between 15 - 24 years, from KwaZulu Natal, North West, Eastern Cape and Free State provinces, enrolled between the periods 2014 to January 2016.

2.8 Objectives

1. To describe the demographic characteristics of the Soul City Rise Young Women's Clubs participants, aged between 15 - 24 years, from KwaZulu Natal, North West, Eastern Cape and Free State provinces, enrolled between the period 2014 to January 2016.

2. To examine the factors associated with inconsistent participation in the Soul City Rise Young Women's Clubs for AGYW aged between 15 - 24 years, from KwaZulu Natal, North West, Eastern Cape and Free State provinces, enrolled between the period 2014 to January 2016.

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2.9 Research Question

What are the factors that are associated with inconsistent participation in club activities of young women aged between 15-24 years, from KwaZulu Natal, North West, Eastern Cape and Free State provinces, who enrolled in the Soul City Rise Young Women's Clubs between the period 2014 to January 2016?

3 Methodology

This chapter describes the methods and techniques used in the secondary data analysis as well as the primary study. The study setting, study design and data management process for both primary and secondary components are described in this section.

3.1 Study Context: - The Intervention

3.1.1 Rise Young Women's Clubs

The Rise Young Women's Clubs are led and supported by the Soul City Institute with the main aim of reducing HIV infections among young women. Adolescent girls and young women who are not infected or those who may already be HIV positive when recruited to the clubs benefit from the club activities.

Goals of the Rise Young Women's Clubs

The Rise Young Women's clubs aim to motivate young women to actively take care of their sexual reproductive health (general HIV prevention as well as structural interventions described in the literature review) and to build social cohesion (87). The intervention combines the use of campaigns, interactive and participatory implementation methods and media platforms (television and social media) to engage communities and decision makers to advocate for gender constitutional rights (86).

The theory of change is based on synergy between health communication and social mobilisation aimed to impact positively on health and social outcomes by addressing the social and community environment (175). The Rise Young Women's clubs seek to recruit participants through "The Rise awareness campaigns" conducted in schools and communities across five provinces in South Africa. The intervention started in 2014 with campaigns encouraging AGYW to form the Rise Young Women's clubs and the program is still on going. The intervention targets women aged 15-24 years in the community. Approximately 2001 Rise Young Women's clubs have been formed with 30 000 AGYW reached (176). The provinces are KwaZulu Natal, Free State, Mpumalanga, North West and Eastern Cape, where there is high HIV prevalence (177). Although club membership is voluntary, the programme also targets out of school and unemployed young women, girls who are struggling with school work, young girls and women who have caregiving responsibilities including caring for children or being head of the

household. The Rise Young Women's clubs are peer groups which encourage participation of members in the discussions.

Rise Young Women's club Structure

The structure of the Rise Young Women's clubs may differ from club to club but generally, each club has between 4 – 20 members, with the chairperson role rotating between members. The number of times the clubs meet per month and what is discussed varies depending on what the club members agree on. The Rise Young Women's clubs are more of peer support groups were AGYW gather and discuss issues related to their sexual reproductive health and empowerment (178-180).

Club members manage the clubs with support from Soul City Institute field support staff. A field worker from Soul City supports and attends at least one meeting a month for quality control and consistency.

Educational materials

The Rise club magazine was received from the field worker every quarter, providing the Rise curriculum and articles that promote the development of life and leadership skills. The magazine contains information on how communities tackle issues related to HIV and sexual reproductive health in an edutainment format. Information on issues to be discussed at club meetings is guided by the magazines and supported by the Rise Talk Show aired on SABC Television weekly. Rise Talk Show aims to encourage young women to be responsible and to communicate with parents and guardians (178, 179).

Records

A paper-based system was mainly used to record meeting attendance and club reports. However, clubs were encouraged to use the online mobile applications (Rise app) wherever possible to record attendance, the topic that the meeting is about and upload reports and photos (179). The Rise app was developed to facilitate a chat platform, record meetings through uploading of membership cards, photos and reports. Club participants were expected to use their own android devices and buy their own airtime in order to access and use the app (179).

3.2 Primary study design

The primary study was two repeated cross-sectional surveys with a baseline component (data were collected in 2014) and an endline evaluation, which was conducted in 2016. The repeated sub-studies did not aim to recruit the same participants. The primary study commissioned by Soul City aimed to:

a) examine the demographic characteristics of the young women attending RISE Clubs.
b) examine their knowledge of sexual and reproductive health and basic rights.
c) assess the achievements of outcomes and outputs of the programme.
d) identify best practices and aspects of the programme.

3.2.1 Primary study population

As described above, the initiative was designed to target young women between the ages of 15-24 years although some clubs recruited members that were not within this age bracket. The primary study collected information on all club members without discriminating those who fell out of the target group i.e. those below 15 years and those above 24 years.

3.2.2 Sampling method used for the primary study

Convenience sampling, a non- probability-sampling technique (162, 163) was used to select participants from the Rise Young women's clubs in the programme areas. All the Rise Young women's club members were invited to participate in the endline survey. However, those who responded by submitting the questionnaire and the relevant consent and assent forms were considered in the sample.

3.2.3 Data collection for the primary study

The primary study employed a paper-based questionnaire that was issued to each club member across South Africa. Participants above the age of 17 years signed a consent form which was submitted together with the questionnaire. Participants under the age of 18 years submitted a signed assent form, consent forms signed by their parents or guardians and the questionnaire. The questionnaire was self-administered and put in sealed envelopes together with the consent / and assent forms and were collected by Soul City fieldworkers. The questionnaire captured information on, socio-demographic characteristics, reasons for joining, club attendance, communication, activities and functionality of the clubs, sexual behaviour and health related information. Questionnaires without identifiers were distributed and there was no follow up system to match participants recruited at baseline in subsequent data collection.

3.3 Secondary study

3.3.1 Secondary study design

The secondary study focuses on the endline cross-sectional data collected from participants who had joined the clubs between October 2014 to January 2016.

3.3.2 Secondary data analysis study sites

The secondary data analysis only focused on five provinces identified to have the highest HIV prevalence in South Africa. The five provinces are KwaZulu-Natal, Free State, Mpumalanga, Eastern Cape and North West.

3.3.3 Study population and sample

The secondary analysis only included young women aged 15-24 years from the endline survey. These women were members of the Rise Women's Clubs. Two thousand six hundred and thirty-five (2635) participants from the primary study endline survey data were eligible for the secondary analysis.

Inclusion criteria:

The selection criteria included any Rise Women's Club member aged 15-24 years, with relevant signed consent forms and had completed the questionnaire, from KwaZulu-Natal, Free State, Mpumalanga, Eastern Cape and North West provinces.

3.3.4 Selected variables for secondary analysis

Table 1 shows the variables used in the secondary analysis.

Table 1: Variables used in secondary study

Classification	Variable Name	Categories/variations	Meaning
Outcome:	Inconsistent participation	- Inconsistent Participation - Consistent Participation	Frequency of attending the Rise Young Women's club
Covariates/Predictor variables:			
Socio-demographic characteristics	Age (years)	- Continuous - Categorical: - 15-19 - 20-24	Age of respondent
	Province	- North West - Kwa-Zulu Natal - Eastern Cape - Free State - Mpumalanga	Province where the participant resides
	Location	- Urban	Area where the

		- Rural	participant resides
	Marital Status	- Married - Unmarried - Cohabiting	Marital status of participant
	Level of Education	- Lower than Grade 8 - Grade 8 - Grade 10 - Grade 11 - Grade 12 - Tertiary	Highest level of education participant has acquired
	In school	- Yes - No	Whether the participant is still in school
	Employment Status	- Employed - Unemployed	Whether participant is employed (part-time, full time)
Sexual risk behaviour information	Ever had an HIV test	- No - Yes - Prefer not to say	Whether participant has ever done an HIV test
	Ever tested HIV positive	- I prefer not to answer - I have never had an HIV test - Yes, the test was positive	Whether participant has ever tested positive for an HIV test
	STI Test	- No - Yes - Prefer not to say	Whether participant has ever done an STI test
	Ever used contraception	- No - Yes	Whether participant has ever used any form of contraception
	With children	- Yes - No	Whether the participant has child(ren)
	Condom Use at last sexual encounter	- I would prefer not to answer - I am not sexually active - Yes - No	Whether the participant used condoms at their last sexual encounter
	Alcohol consumption at last sexual encounter	- I am not yet sexually active - Yes, had some social drinks - No, I had nothing to drink	Whether the participant had consumed alcohol at their last sexual encounter
	Knowledge of SRH	- less than 50% - 50%-70% - 71%-100%	Level of SPH knowledge the participant has
Access to Support	Someone to share serious problems	- Yes - No	Whether participant has someone in the club to talk to when they have serious problems
	Someone to talk to about contraception	- Yes - No	Whether participant has someone in the club to talk to about contraception
	Someone to talk to about sex	- Yes - No	Whether participant has someone in the club to talk to about sexual intercourse
	Someone to talk to about pregnancy	- Yes - No	Whether participant has someone in the club to talk to about issues related to pregnancy
	Someone to talk to about HIV	- Yes - No	Whether participant has someone in the club to

			talk to about issues related to HIV
Perceptions of club related characteristics	Club Management	- Not being managed well at all - Being managed okay, but we could improve - Being managed well	Participant's perception of how well the club they belong to is well managed
	Club Communication	- Communication in the club is poor - Communication in the club is okay, but not great - Communication in the club is good	Participant's perception of flow of information within the club
	Use of Rise club magazine	- Yes - No	Whether the club the participant belongs to uses the Rise club magazine
	Watch Rise talk	- Yes, most episodes - Yes, but watched only a few episodes - No	Whether participant watches the Rise Talk show
	Use Rise App	- Club members do not have the RISE app - Club member have the RISE app	Whether the club the participant belongs to has members using the Rise app

Dependent/ outcome variable

The outcome variable in the secondary analysis was "meetings attended" renamed "Inconsistent participation". This variable was a subjective variable for determining the frequency the member had attended the scheduled club meetings (Appendix: question 31). In the primary data collection, the outcome variable was initially disaggregated as "None", "a few", "most" and "all", in comparison to the meetings planned by the clubs. The outcome variable was re-categorized as inconsistent participation, (capturing "none" and "a few" options) and consistent participation (capturing "most" and "all" options). In the analysis, the "Inconsistent participation" group was coded as "1" because it had a lower frequency and therefore was the rarer group while "Consistent participation" group was coded "0" (181).

Covariates/Predictor variables

These variables were selected for use in the regression model and their selection was mostly guided by knowledge taken from literature. These include socio demographics, sexual risk behaviours (26, 47, 182-185), access to support and club / intervention activities related variables.

Socio-demographic predictor variables

Data captured included age, province, marital status, highest level of education, employment status and whether the participants were in school at the time of the interview. The variable "age" captures the age of the participant at the time the questionnaires were administered. For the purposes of analysis, another age variable categorizing participants' ages into 15-19 and 20-24 age bands was constructed. The variable "province" captures the province where the participants reside. "Marital status" variable captured the marital status at the point of interview. "Highest level of education" variable captures the highest level of education the participant had completed. Participants were considered employed if they were on full time employment, had occasional work, on internship or self -employed.

Sexual risk behaviours variables

The sexual risk behaviour variables include HIV testing, HIV status, STI testing, use of contraception, condom use (47, 184), alcohol consumption (47, 182, 183) and level of sexual reproductive health knowledge (26, 185). For this study it was assumed STI testing was testing for any sexually transmitted infections excluding HIV. Composite scores for sexual reproductive health knowledge were generated. Fourteen questions related to sexual reproductive health were asked and the correct responses were given a score of one (Appendix 3 question 66a-n). A percentage score was generated from the total correct responses given. The knowledge of sexual reproductive health score is reflected by percentage i.e. the higher the percentage score the more knowledgeable the participant is. The variable "with children" captures whether or not the participant had children of her own or not.

Access to Support variables

On exploring the access to support factors that might be associated with participation in the clubs, interpersonal relationships questions were asked. The questions included whether the member had a peer in the club whom they could talk to about contraception, sex, pregnancy, HIV/STIs or any serious problem.

Club/ Intervention related variables

Club related variables included participants' perception on how well clubs were being managed, communication about club activities, number of monthly meetings, use of intervention related

material such as magazines, watching the RISE TV talk show and use of the RISE app. The number of monthly meetings captures the number of times in a month the clubs meet which is different from participation which captures how often they have attended scheduled meetings ever since they joined the clubs.

3.4 Data management and analysis

3.4.1 Data management

Data were exported from Microsoft Access database as an MS Excel spreadsheet, using Epi-Info version 7. The MS Excel spreadsheet was imported into STATA version 13 for analysis. STATA commands aided in data cleaning and recoding. Data cleaning processes included checking for duplicates, missing values, recoding and categorising variables. Some variables were generated in line with analysis requirements. Data were also checked for logical and range errors. Frequency tables were used to assist with this process, and data quality assurance checking was done.

3.4.2 Statistical Analysis

Objective 1: To describe the characteristics of the club members, descriptive statistics such as frequencies, percentages, means (standard deviation) or median (Inter quartile range) were done. Frequencies were generated using cross-tabulation to describe the categorical characteristics of study participants stratified according to outcome variable (participation). Continuous variables are expressed as median (inter-quartile range) if the distribution was skewed and mean ± SD for normally distributed data. The normal probability plot and histogram were the tools used to assess for normality (186, 187). Pearson's Chi square ($\chi 2$) or Fisher's exact test, was used to compare differences in categorical variables between groups whilst the t-test was used to compare differences in normally distributed continuous variables. A two independent samples t-test was used to compare the mean sexual reproductive health knowledge scores of the two outcome groups.

Objective 2: Logistic regression models were used to determine factors that were associated with inconsistent participation in the Soul City Rise Young Women's Clubs. Univariate analysis was used to determine factors independently associated with the outcome variable. Variables from the univariate analysis with p-values less than 0.2 were included in the multivariate analysis. Backward elimination stepwise analysis was applied in the model to select predictive

variables. By using backward elimination with a liberal p-value of 0.2 for exclusion, all potential confounders were included in the model (181). Wald tests were used to identify explanatory variables that were significant to the model. The Wald tests was also used to identify order of eliminating variables from the model by omitting variables with the largest P value first. Likelihood ratio test was used to test the significance of explanatory variables to obtain a parsimonious model.

Odds ratios (OR) with 95% confidence interval (95% CI) were used to measure the magnitude of association and $p < 0.05$ was considered statistically significant. Goodness of fit tests were used to check if the selected models fit the data well.

A +/- 10% change in the odds ratio when comparing unadjusted and adjusted odds ratios was used to determine which potential confounding variables where included in the final model. Adjusting for confounding is important in order to reduce bias or distortion of the association between the outcome and the predictors.

3.5 Ethical considerations

The endline study had received ethical clearance from Human Science Research Council's Ethics Committee (HSRC) and a written permission to access and analyse the endline data for the secondary data analysis was sought from Soul City Institute.

As initially stated, the questionnaire was self-administrated and participants' submitted consent or assent forms together with the questionnaire in a sealed envelope. The questionnaire did not collect personal identification such as member or club names; hence there was no need to de-identify the dataset to preserve anonymity. These considerations were guided by the National Health Research Ethics Council guidelines which are in line with the Declaration of Helsinki (188). Further ethical approval for the secondary analysis was obtained from the Human Sciences Research Council (HSRC) in line with the National Health Research Ethics Council guidelines (188). Ethics certificate number: M170338.

4 Results

This chapter presents the results of the descriptive and logistic regression analyses of the secondary data.

With regard to the descriptive analysis: socio demographic, sexual health variables, access to support and club related characteristics of the study participants are presented. The descriptive analysis highlights the total sample and factors potentially associated with inconsistent participation preceding the logistic regression component. The results of the logistic regression models examining the socio demographic, access to support and club related factors are presented after the descriptive analysis.

4.1 Socio-demographic characteristics of the analytic sample

The full analytic sample consisted of 2635 participants. Table 2 presents the distribution of the sample for each variable. As mentioned in the methods section of the research report, the variable age was not normally distributed so median and inter quartile range (IQR) have been presented. The median age of the sample was 17 years with an IQR of between 16 - 17 years. The majority (n=2300, 87.3%) of the full sample of participants were between the ages of 15 and 19. Most of the full sample's study participants resided in rural areas of the Kwa Zulu Natal (n=912, 34.6%) and Eastern Cape (n=892 (33.9%)) provinces. Eleven (n=11, 0.4%) of the full sample were married and the majority (n=2405, 91.3%) were unmarried. The highest level of education for the majority (n=1508, 57.2%) was between grade 8 – grade 10. Approximately, seventy-eight percent (n=2051, 77.8%) were still in school with 8.4% (n=222) of the full sample being employed either full time or part time.

Table 2 Socio-demographic characteristics

Variable options	Total (n= 2635) n (%)
Age in years	
median : IQR	17 : 16-18
15-19	2300 (87.3)
20-24	337 (12.7)
Province	
North West	264 (10.0)
Kwa-Zulu Natal	912 (34.6)
Eastern Cape	892 (33.9)
Free State	197 (7.5)
Mpumalanga	370 (14.0)
Location	
Urban	718 (27.3)
Rural area	1777 (67.4)
Missing	140 (5.3)
Marital Status	
Married	11 (0.4)
Unmarried	2405 (91.3)
Cohabiting	55 (2.1)
Missing	164 (6.2)
Level of Education	
Lower than Grade 8	112 (4.3)
Grade 8 - Grade 10	1508 (57.2)
Grade 11 - Grade 12	648 (25)
Tertiary	46 (1.8)
Missing	321 (12.2)
In school	
Yes	2051 (77.8)
No	218 (8.3)
Missing	366(13.9)
Employment Status	
Employed	222 (8.4)
Unemployed	1441 (54.7)
Missing	972 (36.9)

Table 3 presents the socio-demographic characteristics of the overall sample stratified by the outcome variable, “inconsistent participation”. Seventy-eight percent (n=2054) of the full sample were in the consistent participation category and 22.0% (n=581) were in the inconsistent participation category. The median age of participants was 17 years with the majority being between the ages of 15-19 years for both the consistent participation and inconsistent participation categories.

Free State province had the lowest percentage of participants reporting in-consistent participation while North West and the Eastern Cape had the highest percentage of in-consistent participants. The cohabiting group of participants had the highest percentage (23.6%) of inconsistent participants followed by the unmarrieds (22.7%). The married group had no inconsistent participant.

Table 3: Socio demographic characteristics stratified by Inconsistent participation categories

Variable options	Outcome variable: Inconsistent Participation	
	Inconsistent Participation n=581 (22.0%)	Consistent Participation n=2054 (78.0%)
	n (%)	n (%)
Age in years		
median: IQR	17: 16-18	17: 16-18
15-19	502 (21.8)	1797 (78.2)
20-24	79 (23.5)	257 (76.5)
Province		
North West	68 (25.7)	196 (74.2)
Kwa-Zulu Natal	195 (21.4)	717 (78.6)
Eastern Cape	223 (25.0)	669 (75.0)
Free State	30 (15.2)	167 (84.8)
Mpumalanga	65 (17.6)	305 (82.4)
Location		
Urban	154 (21.5)	564 (78.5)
Rural area	391 (22.0)	1386 (78.0)
Missing	36 (25.7)	104 (74.3)
Marital Status		
Married	0 (0.0)	11 (100.0)
Unmarried	546 (22.7)	1859 (77.3)
Cohabiting	13 (23.6)	42 (76.4)
Missing	22 (13.4)	142 (86.6)
Level of Education		
Lower than Grade 8	23 (20.5)	89 (79.5)
Grade 8 - Grade 10	349 (23.1)	1159 (76.9)
Grade 11 - Grade 12	135 (20.8)	513 (79.2)
Tertiary	5 (10.9)	41 (89.1)
Missing	69 (21.5)	252 (78.5)
In school		
Yes	455 (22.2)	1596 (77.8)
No	47 (21.6)	171 (78.4)
Missing	79 (21.6)	287 (78.4)
Employment Status		
Employed	42 (18.9)	180 (81.1)
Unemployed	348 (24.1)	1,093 (75.9)
Missing	191 (19.7)	781 (80.3)

4.2 Sexual risk behaviour information of the study participants

Table 4 presents sexual risk behavioural information of the study sample including being tested for HIV and STI, use of contraception and condoms use, use of alcohol and knowledge of sexual reproductive health.

Approximately 56.4% (n=1485) of the full sample reported that they had never tested for HIV. A total of 547 (20.8%) of the full sample preferred not to disclose whether they had been tested for HIV. Three hundred and eighty-eight (n=388, 14.7%) participants of the full sample reported that they had tested for HIV. Forty-four (n=44, 1.7%) participants of the full sample reported having had a HIV positive test result. A total of 488 (18.5%) participants of the full sample had used contraception and 263 (10%) had children. Approximately 19.9% (n=525) had used condoms at their last sexual encounter and 6.1% (n=160) reported that they did not use condoms.

On cross tabulating “Ever tested HIV positive” and “Condom use at last sexual encounter”, approximately 29.6% (n=13) of those who tested HIV positive reported that they had not used condoms during their last sexual encounter. The cross tabulation also showed that twenty five percent (25%, n=11) of participants who reported they were HIV positive had reported that they were not sexually active. Majority of the participants had sexual reproductive knowledge scores of between 50% - 70% with 411 (15.6%) scoring less than 50%.

Table 4: Sexual risk behavioural characteristics

Variable options	Total (n= 2635) n (%)
Ever had an HIV test	
No	1485 (56.4)
Yes	388 (14.7)
Prefer not to say	547 (20.8)
Missing	215 (8.2)
Ever tested HIV positive	
I prefer not to answer	754 (28.6)
I have never had an HIV test	538 (20.4)
Yes, the test was positive	44 (1.7)
Missing	1299 (49.3)
STI Test	
No	1423 (54.0)
Yes	403 (15.3)
Prefer not to say	616 (23.4)
Missing	193 (7.3)
Ever used contraception	
No	1849 (70.2)
Yes	488 (18.5)
Missing	298 (11.3)
With children	
Yes	263 (10.0)
No	2326 (88.3)
Missing	46 (1.8)
Condom Use at last sexual encounter	
I would prefer not to answer	349 (13.2)
I am not sexually active	1313 (49.8)
Yes	525 (19.9)
No	160 (6.1)
Missing	288 (10.9)
Alcohol consumption at last sexual encounter	
I am not yet sexually active	1477 (56.1)
Yes, had some social drinks	50 (1.9)
No, I had nothing to drink	679 (24.8)
Missing	429 (16.3)
Knowledge of SRH	
less than 50%	411 (15.6)
50%-70%	1730 (65.7)
71%-100%	494 (18.8)

Table 5: Sexual risk behavioural characteristics stratified by level of participation

	Outcome variable: Inconsistent Participation	
	Inconsistent Participation (n=581, 22.0%)	**Consistent Participation (n=2054, 78.0%)**
Variable options	**n (%)**	**n (%)**
Ever had an HIV test		
No	338 (22.8)	1147 (77.2)
Yes	88 (22.7)	300 (77.3)
Prefer not to say	120 (21.9)	427 (78.1)
Missing	35 (16.3)	180 (83.7)
Ever tested HIV positive		
I prefer not to answer	175 (23.2)	579 (76.8)
I have never had an HIV test	107 (19.9)	431 (80.1)
Yes, the test was positive	9 (20.5)	35 (79.5)
Missing	290 (22.3)	1009 (77.7)
STI Test		
No	319 (22.4)	1104 (77.6)
Yes	77 (19.1)	326 (80.9)
Prefer not to say	134 (21.8)	482 (78.2)
Missing	51 (26.4)	142 (73.6)
Ever used contraception		
No	398 (21.5)	1451 (78.5)
Yes	113 (23.2)	375 (76.8)
Missing	70 (23.5)	228 (76.5)
With children		
Yes	72 (27.4)	191 (72.6)
No	499 (21.5)	1827 (78.5)
Missing	10 (21.7)	36 (78.3)
Condom Use at last sexual encounter		
I would prefer not to answer	74 (21.2)	275 (78.8)
I am not sexually active	289 (22.0)	1024 (78.0)
Yes	108 (20.6)	417 (79.4)
No	43 (26.9)	117 (73.1)
Missing	67 (23.3)	221 (76.7)
Alcohol consumption at last sexual encounter		
I am not yet sexually active	316 (21.4)	1161 (78.6)
Yes, had some social drinks	11 (22.0)	39 (78.0)
No, I had nothing to drink	147 (21.7)	532 (78.4)
Missing	107 (24.9)	322 (75.1)
Knowledge of SRH		
less than 50%	83 (20.2)	328 (79.8)
50%-70%	396 (22.9)	1334 (77.1)
71%-100%	102 (20.7)	392 (79.3)

4.3 Access to Support for the study participants

Table 6 presents the participant reports of their access to support in relation to sexuality and HIV prevention. Approximately 80% (n=2112) of the participants reported they had a club peer to talk to about contraception, pregnancy and other serious problems. A total of 1534 (58.2%) participants had a peer to talk to about sex and 1360 (57.6%) reported to have a peer to talk to about HIV.

Table 6: Access to Support

Variable options	Total (n= 2635) n (%)
Someone to share serious problems	
Yes	2112 (80.2)
No	426 (16.2)
Missing	97 (3.7)
Someone to talk to about contraception	
Yes	2112 (80.2)
No	257 (9.8)
Missing	266 (10.1)
Someone to talk to about sex	
Yes	1534 (58.2)
No	1009 (38.3)
Missing	92 (3.5)
Someone to talk to about pregnancy	
Yes	2182 (82.8)
No	362 (13.7)
Missing	91 (3.5)
Someone to talk to about HIV	
Yes	1360 (51.6)
No	1184 (44.9)
Missing	91 (3.5)

Table 7 presents the participant reports of their access to support in relation to sexuality and HIV prevention stratified by level of participation. Those who did not have a peer to talk to about HIV (26.2%) and those who did not have anyone to share problems (24.9%) with having higher percentage of inconsistent participants.

Table 7: Access to Support stratified by level of inconsistent participation

	Outcome variable: Inconsistent Participation	
Variable options	**Inconsistent Participation (n=581, 22.0%) n (%)**	**Consistent Participation n=2054 (78.0%) n (%)**
Someone to share serious problems		
Yes	458 (21.7)	1654 (78.3)
No	107 (24.9)	322 (75.1)
Missing	16 (17.0)	78 (83.0)
Someone to talk to about contraception		
Yes	330 (20.9)	1,247 (79.1)
No	233 (24.1)	733 (75.9)
Missing	18 (19.6)	74 (80.4)
Someone to talk to about sex		
Yes	328 (21.4)	1206 (78.6)
No	236 (23.4)	773 (76.6)
Missing	17 (18.5)	75 (81.5)
Someone to talk to about pregnancy		
Yes	498 (22.8)	1684 (77.2)
No	66 (18.2)	296 (81.8)
Missing	17 (18.7)	74 (81.3)
Someone to talk to about HIV		
Yes	254 (18.7)	1106 (81.3)
No	310 (26.2)	874 (73.8)
Missing	17 (18.7)	74 (81.3)

4.4 Perceptions of Rise Young Women's Club related characteristics of the study participants

Table 8 presents the Rise Young Women's Club related characteristics of the study participants.

The majority (n=1473, 55.9%) of the total sample participants belonged to Rise Young Women's Clubs they perceived as being managed well. Twenty-one percent (n=553 (21.0%)) perceived that although they belonged to well managed groups, they believed there was room for improvement. Approximately 10.0% (n=271) of the total sample participants belonged to Rise Young Women's clubs that were perceived as not being managed well. Close to 70% (n=1820) of the total sample participants perceived communication in the Rise Young Women's clubs to be good. Only 5.0% (n = 132) of the participants perceived communication within the club as being poor. Approximately 75.7% (n=1995) of the total sample participants perceived they had none of their club members having the RISE app.

Table 8: Rise Young Women's Club related characteristics

Variable options	Total (n= 2635) n (%)
Club Management	
Not being managed well at all	271 (10.3)
Being managed okay, but we could improve	553 (21.0)
Being managed well	1473 (55.9)
Missing	338 (12.8)
Club Communication	
Communication in the club is poor	132 (5.0)
Communication in the club is okay, but not great	413 (15.7)
Communication in the club is good	1820 (69.1)
Missing	270 (10.3)
Number of monthly meetings	
One	109 (4.1)
Two	966 (36.7)
Three	494 (18.8)
More than three	950 (36.1)
Missing	116 (4.4)
Use of Rise club magazine	
No	196 (7.4)
Yes	2340 (88.8)
Missing	99 (3.8)
Watch Rise talk	
No	627 (23.8)
Yes, but I have watched only a few episodes so far	301 (11.4)
Yes, most episodes	1,459 (55.4)
Missing	248 (9.4)
Use Rise App	
Club members have the RISE app	324 (12.3)
Club members do not have the RISE app	1,995 (75.7)
Missing	316 (12.0)

Table 9 presents the Rise Young Women's Club related characteristic stratified by level of participation. Those in the clubs that were not managed well had a larger (31.0%) percentage of inconsistent participants. The distribution of participation was relatively similar with in all the other variables.

Table 9: Club related characteristics stratified by level of inconsistent participation

	Outcome variable: Inconsistent Participation	
Variable options	**Inconsistent Participation (n=581, 22.0%) n (%)**	**Consistent Participation (n=2054, 78.0%) n (%)**
Club Management		
Not being managed well at all	84 (31.0)	187 (69.0)
Being managed okay, but we could improve	98 (17.7)	455 (82.3)
Being managed well	338 (23.0)	1135 (77.0)
Missing	61 (18.1)	277 (81.9)
Club Communication		
Communication in the club is poor	24 (18.2)	108 (81.8)
Communication in the club is okay, but not great	85 (20.6)	328 (79.4)
Communication in the club is good	406 (22.3)	1414 (77.7)
Missing	66 (24.4)	204 (75.6)
Use of Rise club magazine		
No	46 (23.5)	150 (76.5)
Yes	502 (21.5)	1838 (78.5)
Missing	33 (33.3)	66 (66.7)
Watch Rise talk		
No	140 (22.3)	487 (77.7)
Yes, but I have watched only a few episodes so far	42 (14.0)	259 (86.0)
Yes, most episodes	347 (23.8)	1,112 (76.2)
Missing	52 (21.0)	196 (79.0)
Use Rise App		
Club members have the RISE app	57 (17.6)	267 (82.4)
Club members do not have the RISE app	454 (22.8)	1541 (77.2)
Missing	70 (22.2)	246 (77.8)

4.5 Factors associated with participation

4.5.1 Univariate analysis

Socio-demographic factors associated with inconsistent participation

Results of the socio-demographic factors univariate analysis are presented in Table 10. Factors individually associated with the outcome variable "inconsistent participation" were age, province and employment status as they had p-values < 0.05 and were included in the multivariate analysis. The results showed that the older the participants were, the more likely they were to participate inconsistently. Participants from other provinces were less likely to participate inconsistently compared to those from North West province. Employed participants were less likely to participate inconsistently.

However, level of education was selected for the multivariate analysis as stated in the methods section (p-value < 0.2).

Table 10 Socio-demographic factors associated with inconsistent participation

Explanatory variables	Univariate analysis		
	Unadjusted Odds Ratio	P-value (95% Confidence Interval)	LR P-value
Age in years	1.045	0.051 (1.000 - 1.092)	0.053
Age Category			
15-19	**1.0 (ref)**		
20-24	1.1	0.489 (0.839 - 1.443)	0.492
Province			
North West	**1.0 (ref)**		
Kwa-Zulu Natal	0.784	0.134 (0.570 - 1.077)	0.0019*
Eastern Cape	0.961	0.803 (0.701 - 1.316)	
Free State	0.518	0.007 (0.321 - 0.834) *	
Mpumalanga	0.614	0.013 (0.418 - 0.902) *	
Location			
Urban	**1.0 (ref)**		0.761
Rural area	1.033	0.761 (0.837 – 1.275)	
Level of Education			
Lower than Grade 8	**1.0 (ref)**		
Grade 8 – 10	1.165	0.527 (0.725 - 1.871)	0.129
Grade 11 – 12	1.018	0.943 (0.620 - 1.672)	
Tertiary	0.472	0.155 (0.168 - 1.329)	
In School			
No	**1.0 (ref)**		
Yes	1.037	0.833(0.739 - 1.456)	0.832
Employment Status			
Unemployed	**1.0 (ref)**		
Employed	0.733	0.088(0.955-1.9450)	0.080

*Significant at p –value< 0.05

Sexual risk behaviour information associated with inconsistent participation

Results of the sexual risk behaviour information univariate analysis are presented in Table 11. The factor individually associated with the outcome variable "inconsistent participation" was having children, with those with children more likely to participate inconsistently. This variable was included in the multivariate analysis.

Table 11: Sexual risk behaviour information

Explanatory variables	Univariate analysis		
	Unadjusted Odds Ratio	P-value (95% Confidence Interval)	LR P-value
Ever Had an HIV test			
No	**1.0 (ref)**		
Yes	0.995	0.973 (0.762 - 1.300)	0.923
Prefer not to say	0.954	0.694 (0.753 - 1.208)	
Ever tested HIV positive			
I prefer not to answer	**1.0 (ref)**		
I have never had an HIV test	0.821	0.155 (0.626 - 1.077)	0.351
Yes, the test was positive	0.851	0.674 (0.401 – 1.804)	
STI Test			
No	**1.0 (ref)**		
Yes	0.817	0.155 (0.619 - 1.079)	0.355
Prefer not to say	0.962	0.740 (0.766 - 1.209)	
Ever used contraception			
No	**1.0 (ref)**		
Yes	1.099	0.438 (0.866 - 1.393)	0.440
With children			
No	**1.0 (ref)**		
Yes	1.380	0.029 (1.034 – 1.842) *	0.032*
Condom Use at last sexual encounter			
No	**1.0 (ref)**		
I am not sexually active	0.768	0.165 (0.529 - 1.115)	0.413
I would prefer not to answer	0.732	0.159 (0.475 – 1.130)	
Yes	0.705	0.093 (0.468 – 1.060)	
Alcohol consumption at last sexual encounter			
I am not yet sexually active	**1.0 (ref)**		
Yes, had some social drinks	1.036	0.918 (0.525 – 2.047)	0.987
No, I had nothing to drink	1.015	0.894 (0.814 - 1.266)	
Knowledge of SRH			
less than 50%	**1.0 (ref)**		
50%-70%	1.173	0.239 (0.899 - 1.530)	0.347
71%-100%	1.028	0.866 (0.743 - 1.423)	

Access to Support factors associated with inconsistent participation

Results for the access to support factors in univariate models are presented in Table 12. Factors individually associated with inconsistent participation in univariate models were having someone to talk to about HIV and someone to talk to about pregnancy as they had p-values < 0.05. Participants who had a peer to talk to about HIV were less likely to participate inconsistently and those who had a peer to talk to about pregnancy were more likely to participate inconsistently.

Having someone to share serious problems and having someone to talk to about contraception were included in the multivariate analysis as stated in the methods section (p-value < 0.2).

Table 12 Access to support factors associated with inconsistent participation

	Univariate analysis		
Variable options	**Unadjusted Odds Ratio**	**P Value (95% Confidence Interval)**	**LR P-value**
Someone to share serious problems			
No	1.0 (ref)		0.144
Yes	0.833	0.140 (0.654 -1.061)	
Someone to talk to about contraception			
No	1.0 (ref)		0.061
Yes	0.832	0.060 (0.688 - 1.007)	
Someone to talk to about sex			
No	1.0 (ref)		0.234
Yes	0.891	0.233 (0.737 -1.077)	
Someone to talk to about pregnancy			
No	1.0 (ref)		0.047*
Yes	1.326	0.052 (0.997 – 1.763)	
Someone to talk to about HIV			
No	1.0 (ref)		< 0.001*
Yes	0.647	0.0001 (0.536 – 0.781) *	

*: Significant at p –value< 0.05

Club related factors associated with inconsistent participation

Results for the club related factors in univariate models are presented in table 13. Factors individually associated with inconsistent participation in univariate models were club management, Rise talk show and Rise app. Participants from clubs that were well managed were less likely to participate inconsistently. Those who had never watched or watch a few episodes of the Rise talk show were less likely to participate inconsistently compared to those

who have watched most episodes. Those who used the Rise app were less likely to participate inconsistently compared to those who did not use the Rise app.

Table 13 Club related factors associated with inconsistent participation

	Univariate analysis		
Covariates	**Unadjusted Odds Ratio**	**P Value (95% Confidence Interval)**	**LR P-value**
Club Management			
Not being managed well at all	**1.0 (ref)**		< 0.001*
Being managed okay, but we could improve	0.479	0.00 (0.291 - 0.710) *	
Being managed well	0.663	0.005 (0.319 - 0.721) *	
Club Communication			
Communication in the club is poor	**1.0 (ref)**		0.428
Communication in the club is okay, but not great	1.166	0.549 (0.706 - 1.928)	
Communication in the club is good	1.292	0.271 (0.819 - 2.038)	
RISE Magazine			
No	**1.0 (ref)**		0.514
Yes	0.891	0.510 (0.631 - 1.257)	
Rise talk			
Yes, most episodes	**1.0 (ref)**		0.005*
No	0.921	0.471 (0.737 – 1.151)	
Yes, but I have watched only a few episodes so far	0.520	0.000 (0.367- 0.735)	
Rise App			
Club members do not have the RISE app	**1.0 (ref)**		0.034*
Club member have the RISE app	0. 725	0.038 (0.534 - 0.983)	

***: Significant at p –value< 0.05**

4.5.2 Multivariate Analysis

Final Model

Variables included in the multivariate analysis were age, province, employment status, level of education, having children, having a peer to talk to about serious problems, having a peer to talk to about HIV, having a peer to talk to about contraception, having a peer to talk to about pregnancy, the Rise talk show, the Rise app and how clubs are managed. Models with interaction terms between age and employment status, in school and employment status were not plausible.

The table 14 presents the final model with having children, club management and having someone to talk to about HIV as the factors that were significantly associated with inconsistent participation.

Table 14: Final Inconsistent participation Model

	Univariate Analysis		Multivariate Analysis	
Covariates	**Unadjusted Odds Ratio**	**P Value (95% Confidence Interval**	**Adjusted Odds Ratio**	**P Value (95% Confidence Interval)**
Age in years	1.045	0.051 (1.000 - 1.092) *	1.057	0.141 (0.982 - 1.137)
Province				
North West	**1.0 (ref)**			
Kwa-Zulu Natal	0.784	0.134 (0.570 - 1.077)		
Eastern Cape	0.961	0.803 (0.701 - 1.316)		
Free State	0.518	0.007 (0.321 - 0.834) *		
Mpumalanga	0.614	0.013 (0.418 - 0.902) *		
Level of Education				
Lower than Grade 8	**1.0 (ref)**			
Grade 8 – 10	1.165	0.527 (0.725 - 1.871)		
Grade 11 – 12	1.018	0.943 (0.620 - 1.672)		
Tertiary	0.472	0.155 (0.168 - 1.329)		
Employment Status				
Unemployed	**1.0 (ref)**			
Employed	0.733	0.088(0.955-1.9450)		
Have Children				
No	**1.0 (ref)**		**1.0 (ref)**	
Yes	1.380	0.029 (1.034 – 1.842) *	1.312	0.232 (0.840 – 2.049)
Club Management				
Not being managed well at all	**1.0 (ref)**		**1.0 (ref)**	
Being managed okay, but we could improve	0.479	0.00 (0.291 - 0.710) *	0.345	0.000 (0.194 – 0.614) *
Being managed well	0.663	0.005 (0.319 - 0.721) *	0.711	0.047 (0.507 – 0.996) *
Rise Talk				
Yes, most episodes	**1.0 (ref)**		**1.0 (ref)**	
No	0.921	0.471 (0.737 – 1.151)	0.865	0.427 (0.607 – 1.235)
Yes, but I have watched only a few episodes so far	0.520	0.000 (0.367- 0.735) *	0.836	0.576 (0.447 - 1.565)
Rise App				
Club members do not have the RISE app	**1.0 (ref)**			
Club member have the RISE app	0. 725	0.038 (0.534 - 0.983)		
Someone to share serious problems				
No	1.0 (ref)			
Yes	0.833	0.140 (0.654 -1.061)		
Someone to talk to about contraception				
No	1.0 (ref)			

Yes	0.832	0.060 (0.688 - 1.007)		
Someone to talk to about pregnancy				
No	1.0 (ref)			
Yes	1.326	0.052 (0.997 – 1.763)		
Someone to talk to about HIV				
No	1.0 (ref)		**1.0 (ref)**	
Yes	0.647	0.0001 (0.536 – 0.781)	0.599	0.000 (0.449 – 0.7984) *

*: Significant at p –value< 0.05

There was no evidence to suggest that age or having children was associated with inconsistent participation in club activities, (Age: adjusted odd ratio (aOR) 1.057, 95% confidence interval [0.982 - 1.137] , p-value = 0.141), (Having children: adjusted odds ratio (aOR = 1.312, 95% confidence interval [0.840 – 2.049] , p-value = 0.232).

Compared to those who had watched most of the Rise Talk Show episodes (the reference), participants who did not know about the programme or had watched a few episodes, had lower odds of participating inconsistently. However, there is no evidence to support association with inconsistent participation as the p-values are greater than 0.05.

Participants reporting that their clubs were managed satisfactory had lower odds of participating inconsistently than those reporting that their clubs were managed badly, i.e. participants were likely to report consistent participation in club activities if they perceived that their club was run well. There was a 10% change in comparing the unadjusted to the adjusted odds ratio of this variable. The change of +/- 10% from the unadjusted odds to the adjusted odds determines the presence of a confounder.

Participants who had a peer to talk to about HIV had lower odds of participating inconsistently in club activities compared to those who did not have any one to talk to (aOR = 0.599, 95% confidence interval [0.449 – 0.798] , p-value < 0.001), i.e. those who had peers to talk to about HIV were likely to participate consistently in club activities.

5 Discussion and Conclusion

This chapter gives an overview of salient findings from the study with possible explanations for these findings. The chapter also compares these findings with those of previous similar studies that may have yielded similar or dissimilar results. This is an attempt to give meaning to the main findings. Limitations of the study are acknowledged at the end of the chapter.

5.1 Overview of findings

Limited literature has examined factors associated with inconsistent participation . The multivariate model suggested that the factors associated with inconsistent participation are age of the participant, having children, how the clubs are managed and being able to watch the Rise Talk show. Club management and having a peer to talk to about HIV were the only significant factors in the model.

For the clubs to be sustainable, the perceptions of how clubs are managed and communication within the clubs are important to the club participants, for them to participate. Results from this study suggest that participants from clubs that were not well managed were more likely to participate inconsistently compared to those from well-managed clubs. A possible explanation for this could be that poor communication and management facilitates incoherence of the club and everyone is unaware of club activities and are not able to contribute to activities or discussions to be implemented in the clubs.

Participants with a peer to talk to about HIV were less likely to participate inconsistently. This could be due to the acceptance of issues of HIV with in the communities and also the intervention being centred on HIV prevention. On the other hand, pregnancy in this age group is less acceptable by the community hence AGYW with peers to discuss pregnancy issues were less likely to participate inconsistently.

Age and having children were factors in the multivariate model although not significant. The older the participant was, the more likely they were to participate inconsistently. This could be attributed to increase in responsibilities such as household chore and taking care of younger

siblings, competing interests such as need to look income generating commitments. Not having children or parenting commitments was associated with being less inconsistent in participation and the possible explanation is the opportunity it presents to engage in extra activities compared to those with parental commitments.

Participants who were able to watch only a few episodes of the Rise talk were less likely to participate inconsistently. On the other hand, those who watch most episodes more likely to participate inconsistently. These results are not clear as one would think watching the Rise talk as a club will facilitate consistent participation and well those who have watched a few episodes would want to catch up on what has been happening on the show causing them to participate more consistently.

Factors individually associated with inconsistent participation included use of the Rise App, having a peer to talk to about pregnancy, province the participant is in and employment status. Each of these findings will be further interrogated below.

Participants from other provinces were less likely to participate inconsistently than those from North West. This might be due to early introduction of the programme and acceptance in the other province. The difference could also be attributed to the levels of community sensitisation and acceptability on HIV prevention programmes targeting AGYW.

Employed participants were less likely to participate inconsistently and this could be due to them being financially independent and requiring less or no parental permission to engage in the programme.

Participants who used the Rise App were less likely to participate inconsistently. Very few members used the Rise App and this could be due to most participants not having access to mobile gadgets that are able to house the application and the airtime to be online. With the increasing access to mobile technology, the field of mobile health in improving preventive behaviour or diseases among adolescents has been shown to be feasible and acceptable (206-208). A systematic review study by Badawy and colleagues evaluated evidence for the efficacy of text message service and mobile phone app interventions to improve adherence to preventive behaviour among adolescents, showed feasibility and acceptability of text messaging and mobile phone apps, with modest findings in terms of efficacy (206).

This study also provided descriptive statistics of the participants as well as factors associated with inconsistent participation of members in the Soul City Rise Young Women's Clubs. The factors included socio demographic characteristics, access to support, sexual risk behaviour and perceptions of club related issues including communication and how the clubs are managed.

This study has also revealed several important and interesting findings. The most insightful descriptive statistics include ever having tested for HIV/AIDS, use of condoms during last sexual encounter and nearly a quarter of those who reported that they are HIV positive had never been sexually active. Although these descriptive statistics are not for the outcome variable, it is of importance to bring attention to these results.

The finding that half of the full sample had never tested for HIV/AIDS is not surprising. Studies of adolescents on the African continent in relation to HIV testing have yielded varying results, some of them comparable to my findings. For example, a study conducted in Kwazulu Natal by Chimbindi and colleagues, made a comparison on the uptake of HIV testing by adolescent girls and young women in 2011 and 2015. No increase in testing uptake were noted between the two time points (66.7% HIV testing uptake) (105). Ziraba and colleagues who work in Nairobi, Kenya and analysed surveillance data found that 50% of females aged 12-23 years had undergone a HIV test and the proportion increased by age (189). However, a study by Kabiru and colleagues done on the same population, investigated the correlates of HIV testing and impact on sexual behaviour revealed that the decision to test was greatly motivated by perceived risk of HIV infection. Testing for HIV was associated with engaging in unprotected sex (190). Factors that drive or motivates adolescents to test for HIV are important in the development of future projects or initiatives targeting adolescents. Other studies conducted among adolescents on the African continent suggests that HIV testing might be associated with support and encouragement. This study which was conducted in Nairobi, Kenya examined how support from peers, partners or parents influence adolescents and young adults to test for HIV. The study suggested greater influence from partners and peers with young adults (20 -24 years old) more likely to be influenced by their partners (107). A study by Reif and colleagues showed a 98% HIV testing uptake by youths aged 10 – 24 years who had been recruited by community health workers (108). Another study suggested that peer navigators were successful by promoting a 88.8% uptake of HIV testing (109). Provision of HIV testing services also facilitate the ease of testing for adolescents and young adults. In this study, no services were provided although the

curriculum encouraged participants to test and know their HIV status. The non-provision of services might have been a barrier to testing since the two participation categories had similar proportions of those who had not tested (53).

Previous studies also suggest that there are several reasons as to why participants may not test for HIV. Testing services may not be accessible for adolescents and the laws that require consent of the guardian for a child under 18 years (53, 191). A study by Eda and colleagues, which investigated the barriers to access HIV services for adolescents in sub Saharan Africa, suggested that there were discrepancies in HIV laws and national policy documents to facilitate adolescent access to HIV services (53, 54). Another study conducted in Soweto, South Africa by Mulaudzi, Dlamini and colleagues highlighted the need to build capacity among healthcare workers to provide adolescent friendly services. It was reported that inadequate training for healthcare workers to deal with adolescent sexuality and health care providers' attitudes towards adolescents were perceived as barriers to adolescents accessing the testing services (191). It is possible that girls who have not tested for HIV may attend a peer education initiative to learn about HIV testing services (192, 193). A study by Scott and colleagues which investigated the association of HIV testing among young black men who have sex with men and peer social support suggested a positive association between social support and HIV testing (192).

Nearly a third of those who were sexually active had not used a condom in their last sexual encounter. Again, some previous studies of adolescent girls and young women corroborate this finding while others yield dissimilar findings. There are studies on the African continent that reported an increase in the use of condoms but lack of consistent use especially in long-term relationships (36, 100). A study by Ziraba and colleagues that examined HIV risks among adolescent girls in informal settlements of Nairobi ,Kenya, suggested only a quarter of the sexually active participants had used condoms at their last sexual encounter (189). For the two thirds of the sample that use condoms, it cannot be entirely determined whether there is a relationship between participation in the clubs and condom usage. A recent systematic review examining studies of college students however suggests that peer education can influence sexual health and behaviour change including condom use (194). This is also supported by a study which investigated condom use, peer norms and self-efficacy in facilitating community engagement and condom use (195).

It is entirely not surprising that several participants who are HIV positive reported that they had never been sexually active as they might have acquired the infection at birth. Research suggests that the increased availability of antiretroviral drugs, increases longevity for perinatally infected adolescents (196-198). A study by Ferrand and colleagues investigating presentation of HIV infection in older children and adolescents suggests that majority of these children had acquired the infections through mother to child transmission (199). Another study by Fattie and colleagues provides evidence that pediatric ART programmes are effective at improving immunological treatment outcomes if treatment is accessed early (197). There is a possibility that adolescent girls and young women who were perinatally infected with HIV may seek peer support for social cohesion. A study assessing the effects of peer support group therapy on HIV infected adolescents suggests improvement in their emotional wellbeing as a result of a peer group intervention (200).

The majority of participants reported that they felt supported within the club for advice about contraception and pregnancy. However, close to 40% reported limited to no support to discuss HIV prevention and sexual activity. Adolescent girls tend to report varying factors for discussing sexuality and HIV. Stigma could be one factor that inhibits these sorts of discussions (163, 201, 202). Stigma in this instance is defined as social process through which individuals are held in low esteem based on particular negatively perceived characteristics or status (203). There is a possibility that some participants might be receiving sufficient advice at home. However, it is also possible that parents are not well equipped to have these sorts of discussions with their adolescent or adult children (204, 205). A study by Mudhovozi and colleagues explored mother's perspective on adolescent sexuality and showed mothers not effectively imparting information due to fear of sensitizing girls to sexuality issues (204). Another qualitative study indicated that parents lacked confidence and felt embarrassed to discuss HIV and sex related issues with their adolescent children. They also felt the adolescents were still too young and discussing the issues might facilitate the adolescent to have negative judgement (205).

5.2 Strengths of the study

The study highlights some of the factors that are associated with AGYW not participating consistently in HIV programmes. The Rise Young Women's club as an intervention under study gives an insight on how programmes that do not offer financial incentives and have minimal supervision from funding organisations can be sustainable and motive participation of the target

group. Investigating factors associated with inconsistent participation will assist in designing HIV prevention programmes that motive AGYW to participate facilitating the programmes to make positive impact on HIV prevention.

5.3 Study limitations

The study had several limitations.

The cross-sectional nature of the study limited the ability to establish causal relationships between factors such as having someone to talk to about HIV and inconsistent participation. It could be that a participant had someone to talk to before participating or, participating in the clubs lead to identifying someone to talk to about HIV.

The use of endline data posed a limitation in that the data could not be used to analyse changes in participation over a period of time.

There was no sense of whether the questions were well understood by the participants due the tool being self-administered and no response on some questions lead to missing data and affected the precision of the sample. Self-administration of the tool without guidance from the field workers compromised the quality of the responses and of the data set as quality assurance was also not conducted at the receipt of the envelops with the tools.

The wording or misinterpretation of questions may have been a barrier to accurate responses. There could have been misclassification caused by recall bias and social desirability bias especially when responding to health and behavioural questions. The structuring of some of the questions in the tool were not specific to a group for example questions targeting only those who are sexually active or those who have tested for HIV.

Psychosocial factors such as anxiety, depression and social integration were not captured in the primary study questionnaire. Research suggest mental health conditions are related to HIV risks particularly in adolescents (206, 207) and issues of depression affecting not only those who are infected (201, 208, 209). Investigating the mental state of adolescents is of importance and may be related to participation.

Information on whether the clubs were part of a school-based intervention or community-based clubs was not captured. This information would have aided in determining whether the high numbers of participants in the consistent participation group was due to school-based

interventions which are compulsory to attend compared to community-based clubs. Previous studies evaluating school-based HIV/AIDS risk reduction programmes highlight that a greater proportion of the youth can be reached through schools and schools provide an established, more convenient venue (2-6).

5.4 Conclusion

This study has yielded interesting and important findings. It is clear that there are several challenges to the sexual and reproductive health of girls and young women in South Africa in regards to HIV testing and consistency in condom use. However, there is need to provide complementary services to support the initiative such as provision of accessible voluntary testing and counselling services for adolescents and child care to cater for those with children. Factors that individually facilitate inconsistent participation were being older in age, being a participant from North West, having children, being unemployed, not having a peer to talk to about HIV and belonging to a club perceives not well managed. A fundamental issue to participating less inconsistently in such initiatives as Rise young women clubs is optimal and supportive management. Attention should be given to managing clubs efficiently so that adolescent girls and young women will be encouraged to participate. In conclusion this study provides a guide to HIV programme designers and researchers to consider factors that are bound to facilitate inconsistent participation by the target group.

5.5 Recommendations

With the viable platform peer support groups present in terms of influencing desirable behaviours and attitudes in HIV related issues affecting adolescents. It is recommended that further studies be conducted in order to understand what influences AGYW to participate consistently in HIV prevention programmes. Cohort studies will potentially elucidate the behaviour change brought about by the programme (210, 211).

Further investigations and conducting studies that address complex factors e.g. childhood adversity and sexual abuse and HIV risk will need to be done on the Rise Women's Clubs participants. Previous studies have shown that childhood adversity influences the current health of adolescents and youth, and puts their sexual partners at risk for HIV infection (24, 212).

Designing and structuring of the data collection tools need to be precise in order to obtain consistent responses. Quality control measures in the tool and also in data collection need to be implemented.

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Appendices

Appendix 1: Plagiarism Declaration Form

PLAGIARISM DECLARATION TO BE SIGNED BY ALL HIGHER DEGREE STUDENTS
SENATE PLAGIARISM POLICY: APPENDIX ONE

I **__ CAROLINE MUDARA __** (Student number: **_710854_**) am a student registered for the degree of **Master of Science in Epidemiology and Biostatistics** in the academic year **2017**.

I hereby declare the following:

- I am aware that plagiarism (the use of someone else's work without their permission and/or without acknowledging the original source) is wrong.
- I confirm that the work submitted for assessment for the above degree is my own unaided work except where I have explicitly indicated otherwise.
- I have followed the required conventions in referencing the thoughts and ideas of others.
- I understand that the University of the Witwatersrand may take disciplinary action against me if there is a belief that this is not my own unaided work or that I have failed to acknowledge the source of the ideas or words in my writing.

Signature: Cmudara Date: 01/02/2019

Appendix 2: Ethics Clearance Certificate

R14/49 Caroline Mudara

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL)

CLEARANCE CERTIFICATE NO. M170338

NAME: (Principal Investigator)	Caroline Mudara
DEPARTMENT:	School of Public Health Epidemiology and Biostatistics
PROJECT TITLE:	Factors Associated with Active Participation in the 'Rise Women Clubs' Social and Behaviour Change Communication Programme
DATE CONSIDERED:	31/03/2017
DECISION:	Approved unconditionally
CONDITIONS:	
SUPERVISOR:	Edmore Marinda and Sumaya Mall
APPROVED BY:	Prof P Cleaton-Jones, Chairperson, HREC (Medical)
DATE OF APPROVAL:	21/04/2017

This clearance certificate is valid for 5 years from date of approval. Extension may be applied for.

DECLARATION OF INVESTIGATORS

To be completed in duplicate and **ONE COPY** returned to the Research Office Secretary in Room 301, Third floor, Faculty of Health Sciences, Phillip Tobias Building, 29 Princess of Wales Terrace, Parktown, 2193, University of the Witwatersrand. I/we fully understand the conditions under which I am/we are authorized to carry out the above-mentioned research and I/we undertake to ensure compliance with these conditions. Should any departure be contemplated, from the research protocol as approved, I/we undertake to resubmit the application to the Committee. **I agree to submit a yearly progress report**. The date for annual re-certification will be one year after the date of convened meeting where the study was initially reviewed. In this case, the study was initially reviewed in March and will therefore be due in the month of March each year. Unreported changes to the application may invalidate the clearance given by the HREC (Medical).

Principal Investigator Signature

Date

PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES

Appendix 3: Primary Study Endline Questionnaire

Endline, March 2016

Dear Soul City RISE Club Members

Soul City has been evaluating the RISE programme in order to find out if the programme is helping young women that are club members, and what we could do to make out programme work better for you. This means that we have been doing some research to help us understand this. As part of this research, we would like to ask all club members to do the following:

-Please can all members of the club fill in the questionnaire below

-Each member of the club needs to fill out a SEPARATE questionnaire

-You will see that the questionnaire does NOT ask for your name or the name of the club, so your answers will remain confidential

-Your answers are private, so please don't share them with other club members

-When you have all completed the questionnaire, please put these in the envelope provided and seal the envelope. Soul City will then make a plan to collect these

NOTE: you will each also receive:

-An information sheet, which explains the research in more detail. You can keep this

-If you are 18 and older and you agree to participate, you will need to sign a consent form (also attached) which you must also include in the envelope

-If you are under 18, you need to ask your mother, father or guardian if you can participate in this research. There is an information sheet for them and for you, and both you and your parent/guardian also has to sign a consent form. You also have to sign another consent from.

These are all in the pack provided to your club.

NOTE THAT YOU MAY HAVE COMPLETED THIS QUESTIONNAIRE BEFORE. EVEN IF YOU HAVE, WE WOULD VERY MUCH LIKE YOU TO FILL IT IN AGAIN SO THAT WE CAN SEE IF ANYTHING HAS CHANGED SINCE THE LAST TIME. IF

YOU HAVE NEVER COMPLETED THIS QUESTIONNAIRE BEFORE IT WOULD BE GREAT IF YOU COULD DO SO THIS TIME.

We thank you very much for participating in this research. It is very important research, and we value the time that you will be putting into this.

This form should take you about half an hour (30 minutes) to complete.

Kind regards

Soul City

Biographical Information					
1	Today's Date	Day	Month	Year	
2	Province in which you live (tick one)	Eastern Cape			
		Free State			
		Gauteng			
		Kwa-Zulu Natal			
		Mpumalanga			
		North West			
3	Name of town/community in which you live				
4	Is this a big city, a town or a rural area? (tick one)	Big City (here we mean a really big one, like Jozi, Cape Town and Durban)			
		Town (not a big city like Jozi, but still an urban town)			
		Rural area (villages, farms and so on outside of a town or city)			
5	Your age at last birthday				
6	Your race (tick one)	I prefer not to answer this			
		Black			
		Coloured/mixed race			
		Indian			
		Asian			
		White			
7	What kind of household do you currently live in?	Brick house			
		Apartment/flat			
		Townhouse in a cluster or a complex			
		In a brick room/cottage in a back yard			
		Shack in a back yard			
		Shack in an informal settlement			
		In a hostel			
		Traditional dwelling or hut			
8	Do you have running water in your household i.e. taps in the house or a tap in the yard (tick one)?	Yes			
		No			
9	If you don't have running water in your household, how long does it take to walk to where you get water and back home?	A few minutes			
		Between fifteen minutes and half an hour			
		About half and hour			
		About an hour			
		More than an hour			
10	How many adults (18 years or older) live in your household?				
	How many of these adults are employed or self employed (have own business or an income generating activity)?				
11	Do you have children (tick one)?	Yes, I have children (Please insert the number of children you have in the space below)			

		No, I don't have children	
12	Are you married (tick one)?	Yes, I am married	
		No, I used to be married but I am not anymore	
		No, I have never been married	
		No, but I am living with my partner	
13	Are you still in school?	Yes (please insert your current grade below)	
		No	
14	If you are not in school, are you studying elsewhere at the moment?	Yes	
		No	
15	What is your highest educational qualification (i.e. what is the highest level of schooling or post schooling that you have successfully completed so far)?	Lower than Grade 7	
		Grade 7	
		Grade 8	
		Grade 9	
		Grade 10	
		Grade 11	
		Grade 12	
		National Certificate Vocational (NCV) (tick which level below)	
		NCV 2 / NCV 3 / NCV 4	
		NATED course (N course) (tick which level below)	
		N1 / N2 / N3 / N4 / N5 / N6	
		Post-school diploma	
		Undergraduate university degree	
		Post graduate university degree	
16	What Is your current employment status?	Unemployed and not looking for work at the moment	
		Unemployed and looking for work	
		Employed full time with permanent/open contract (fixed hours with a contract)	
		Employed part time with permanent/open contract (fixed hours with a contract)	
		Fixed contract work (work for a short period with a clear time frame)	
		Occasional/piece work	
		On an internship	
		On a learnership	
		Self-employed (I have my own business)	
		Other (please specify below)	
17	Do you have a CV?	Yes	
		No	
18	If you were asked to go for a job interview, do you think you know what will be	I have no idea what would be expected of me	
		I have very little sense of what would be expected of me	

	expected of you?	I have some sense of what would be expected of me	
		I have a good sense of what would be expected of me	

19	Do you plan to study further?	Yes	
		No	
20	If you do plan to study further, tick one option that describes you best	I have a career plan and I need to study further to proceed with this career	
		I can't find a job, so I think I need to study further	
		I want to study further, but I have not decided what I want to study yet	
		I am studying at the moment	
		Other (please specify below)	
21	If you do not plan to study further, tick one option that describes you best	I have done all the studying that I need to do for now in terms of my career plan	
		I cannot afford to study	
		I am not interested in studying	
		I am working right now and can't study	
		Other (please specify below)	
		About your RISE club	
22	How did you hear about the RISE Clubs? (tick all the options that apply)	I used to belong to a Soul Buddyz Club and was contacted by Soul City to see if I was interested	
		I was directly approached by someone from Soul City who told me about the Club	
		I heard about it at my school	
		I heard about it from a friend	
		I heard about it on the radio	
		I heard about it from the newspaper	
		I heard about it at a community meeting	
		I heard about it from a youth group I am involved in	
		Other (please specify below)	
23	Why did you join the club (tick all the options that apply)?	I loved the Soul Buddyz Club I was in, and so I joined this one hoping it would also be good	
		I thought it would be fun and interesting	
		I wanted to make more friends in my community	
		I joined because my friend/s joined	
		I joined because I want to learn more about sexual health and choices	
		I joined because I want to learn more about how to get a job	
		I joined because I want to learn more about starting a business	
		I joined because I want to learn more about studying further	
		I joined because I want to feel more empowered as a woman	

		I was bored and so I decided to join			
		Other (please specify below)			
24	When did you join the RISE Club?	Month		Year	
25	Please describe the one thing that you think all of the members in your club have in common (if anything)?				
26	Please tick which of the following you have at your Club?	A chairperson			
		A treasurer			
		A secretary			
		A timekeeper			
		I don't know			
27	To what extent would you say that you Club is being managed/run well do date?	It is not being managed well at all			
		It Is being managed okay, but we could improve			
		It is being managed well			
		It is being managed very well			
28	In terms of communication, does the Club inform all members in good time about when and where meeting will be, what Club events are taking place and so on?	Communication in the Club is poor			
		Communication in the club is okay, but not great			
		Communication in the club is good			
		Communication in the club is excellent			
29	Does Soul City communicate well with your Club about events and other interventions from their side?	Poor communication			
		Okay communication			
		Good communication			
		Excellent communication			
30	How many meetings does your club have per month?	One	Two	Three	More than three
31	How many meetings have you attended since you joined?	None	A few	Most	All
32	How many meetings have you missed since you joined	None	A few	Most	All
33	If you have missed most or all of the Club meetings to date, what is the reason for this?	They are boring			
		I have too many responsibilities and so I have not been able to attend all			
		I have problems with transport			
		The times of the meetings are not good for me			
		I don't feel welcome there			
		Other (please specify below)			
34	Of the meetings you have attended so far, what have you liked the most (tick all the options that apply)?	Just being with other women/girls that I can relate to			
		Getting out of the house and doing something interesting			
		Learning about love, and relationships			
		Catching up with each others' news			
		Learning about sexual health			
		Talking about what's hot in fashion			
		Learning about sexual and health rights and how to make choices			

		Learning about how culture has influenced the way others see me and the way I see myself	
		Discussing celebrities	
		Learning about study and/or careers that are open to me	
		Learning about how I can use my money carefully	
		Getting advice about my boyfriend	
		Learning about how to start a business	
		Learning about loving myself, growing my confidence and how I can become the woman I want to be	
		Talking about my friend l	
		Feeling that I am not alone and that others feel like I do	
		Doing projects that will hopefully change my life	
		Doing projects that will hopefully change the lives of other people in my community	
		Other (please specify below)	
35	Of the meetings you have attended so far, what have you liked the least (tick as many options as you like)?	I struggle to get along with the other club members	
		I don't like the stuff about love and relationships	
		I don't like all the stuff about sex and sexual health	
		I don't like the stuff about culture and gender	
		I don't like the stuff about jobs and careers	
		I don't like the stuff about loving yourself and self-confidence. It's boring	
		I don't like the projects that we do	
		I feel like we just sit around and talk	
		I feel like this is a waste of my time	
		Other (please specify below)	
36	Has your club organised any events yet (i.e. activities that you organize as a club)?	Yes	
		No	
37	If yes, how many events have you organised/been involved in since you joined the club?		

38	What were these events about?	Project Focus	Number of projects you have organised/been involved in of this type
		Fundraising for club	
		Fundraising for charity	
		Event for club	
		Event for club and other people we invited	
		Club visit to …(specify in the space below)	
		Invited person/organisation to club to speak to us about…(specify in the space below)	

		Club small business project (specify type of small business in the line below)	
		Educating others in our community about …(specify in the space below)	
		Drama presentation in the community about …(specify in the line below)	
		Volunteering/helping others in community	
		Organised a march in the community	
		Participated in a march in the community	
		Other (specify in the space below)	

39	So far, how would you rate your overall experience of your club?	It's not great	
		It's okay	
		It's good	
		It's great and I love it	
		Other (please specify below)	
40	If you keep coming to the meetings, do you think the club will make any difference to your life?	I don't think it's really make any positive difference to my life	
		I think it could make a positive difference, but I'm not sure yet	
		I am sure it will make a positive difference to my life	
		I am sure it will make a positive difference to my life and It already has	
		Other (please specify below)	
41	When you have club meetings, do you use the RISE Young Women's Clubs magazine?	Yes	
		No	
42	What do you think of the magazines?	The content is not very relevant to want we want to do with out club	
		The content is okay. We have used/discuss a few of the articles in club meetings	
		The content is good. We use/discuss a lot of the articles for our club meetings	
		The content is fantastic. We use/discuss most of the	

		articles at our club meetings	
43	Have you watched any episodes of RISE Talk on SABC TV 1?	No, I don't have a TV	
		No, I didn't know about it	
		No, I haven't had the time	
		Yes, I have watched most episodes so far	
		Yes, but I have watched only a few episodes so far	
		Yes, but I have only watched one episode so far	
		Yes, we watch it together as a club	
44	What do you think of the RISE Talk TV show?	I haven't watched it, so I can't say	
		It's not great. I found it not really relevant to me and my life	
		It's okay. Some parts were relevant to me and my life	
		Its good. I think most of it is relevant to me and my life	
		It's brilliant. It is very relevant to me and my life	
45	Have you recommended the RISE Talk TV show to anyone of your friends?	No	
		Yes	
46	Have you liked/followed the RISE Talk Show Facebook page??	No	
		Yes	
47	Please share your views about the RISE Talk Show Facebook page (tick all the relevant options)	I don't use Facebook because it uses a lot of data	
		I don't use Facebook because I don't have a smart phone and/or access to a computer	
		I don't use Facebook even though I have a smart phone and/or access to a computer	
		I have liked/followed the RISE Talk Show Facebook page, but I don't look at it often	
		I have liked/followed the RISE Talk Show Facebook page, and I check it every now and then	
		I have liked/followed the RISE Talk Show Facebook page, and I check it often	
		I have shared a RISE Talk Show post on Facebook at least once	
		I have liked a post on the RISE Talk Show Facebook page at least once	
		I have commented on a RISE Talk Show Facebook post at least once	
		I think the RISE Talk Show Facebook page is boring	
		I think the RISE Talk Show Facebook page is really interesting	
48	Have you signed up for the RISE Young Women's Movement MXit app?	No, I didn't know about it	
		No, I don't have a cell phone	
		No, my cell phone can't use that app	
		No, I have a phone, but I don't have airtime to use for the MXit app	
		Yes, I have signed up and I use it every day	
		Yes, I have signed up and I use it often	
		Yes, I have signed up and I use it occasionally	
		Yes, I have signed up, but I hardly ever use it	
49	If you have used the MXit app, what do you mainly use it for?	Club chats	
		Chats with other people not in my club	
		Reading the articles	
		Checking for new events	

		Doing the polls	
50	Have you recommended the RISE MXit app to anyone of your friends?	No	
		Yes	
51	Have you downloaded the RISE app on your phone? (tick one)	No, I didn't know about it	
		No, I don't have a cell phone	
		No, my cell phone can't use that app	
		No, I have a phone, but I don't have data to use for the app	
		Yes, I have downloaded it	
52	Has anyone else in your club got the RISE app? (tick one)	All our club members have the RISE app	
		Most of our club members have the RISE app	
		A few of our club members have the RISE app	
		Only one club member has the RISE app	
		None of the club members has the RISE app	
53	What do you use the RISE app for?	I don't use the RISE app	
		For chatting to other members of my club	
		For chatting to people in other clubs	
		For organising club meetings	
		For organising club events	
		For reporting to Soul City	
54	Does your club have a Club Group on WhatsApp?	No	
		Yes	
55	What do you use the WhatsApp Club Group for? (tick one or more)	We don't have one	
		We use it for chatting to each other	
		We use it for organising club meetings	
		We use it for organising club events	

	Content					
	We'd like to ask you some questions that will help Soul City to understand who you are and what your life is about so that our support to the RISE clubs can focus on ways to help you with positive life and health choices. This information will remain completely confidential and we will never identify you as an individual. These questions are very personal, and we appreciate your honesty and that you are trusting us with this information.					
56	Have you ever had an HIV test?	I prefer not to answer this question				
		I am not sexually active, so I have never had one				
		I am not sexually active, but I went for a HIV test anyway				
		I am sexually active, but I have never been for an HIV test				
		I am sexually active and have been for one or more HIV tests				
		If you have tested, when last did you go for an HIV test?				
		More then two years ago	More than a year ago	Between 6 months and a year ago	Within the last six months	
57	Have your HIV test/s been positive?	I prefer not to answer this question				
		I have never had an HIV test				
		No, the test was negative				

		Yes, the test was positive				
58	If you are HIV positive, have you been to a clinic/doctor for treatment?	I would prefer not to answer this question				
		No, I have not gone to a clinic yet				
		Yes, I went to a clinic and I am on treatment				
		Yes, I went to a clinic and was put on treatment, but I have stopped the treatment				
		Please explain why you have stopped the treatment by ticking one option below				
		Because of side effects	Because I don't want people to find out that I am positive	Because it is difficult to get to the clinic	Because my partner is also HIV positive	
		Because the clinic ran out of my medicine/treatment	Other (please specify)			
59	If you have visited a clinic for HIV treatment, when was your last clinic visit?	More then two years ago	More than a year ago	Between 6 months and a year ago	Within the last six months	
60	Have you ever been tested for another sexually transmitted disease?	I prefer not to answer this question				
		I am not sexually active, so I have never had this check-up				
		I am not sexually active, but I went for a check up				
		I am sexually active, but I have never been for an STI check up				
		I am sexually active and have been for one or more STI check up				
61	Have you ever used contraception?	Yes				
		No				
62	Did you use a condom the last time you had sex?	I would prefer not to answer this question				
		I am not yet sexually active				
		Yes, my partner used a male condom				
		Yes, I used a female condom				
		No, I did not use a condom				
		If you did **not** use a condom the last time you had sex, can you indicate why by ticking one box below				
		I am in a trusting relationship	Oops, I forgot	We didn't have condoms with us	I prefer sex without a condom	
		My partner prefers sex without a condom	I was raped	Other (please specify)		
63	Had you drunk alcohol	I am not yet sexually active				

	when you last had sex?	Yes, I had one or two social drinks	
		Yes, I had had quite a lot to drink	
		Yes, I was totally drunk	
		No, I had nothing to drink	
64	How long had you known the person you last had sex with?	I am not yet sexually active	
		I met the person that same day/night	
		A few days	
		A few weeks	
		A few months	
		A year or more	
65	How many people have you had sex with in the last month?		

66	**Please indicate whether the following questions are true or false**	True	False
	You can't fall pregnant while you are menstruating		
	It is legal to have an abortion in South Africa		
	You can fall pregnant the first time you ever have sex		
	If you have sex with someone more than five years older than you, you are more at risk of getting HIV		
	If you boyfriend withdraws his penis before he ejaculates, you can't fall pregnant		
	You can't get HIV from anal sex		
	You can get a sexually transmitted infection from oral sex		
	The contraception implant will protect you from HIV		
	You should get tested for HIV before you get pregnant		
	Using a condom cannot protect you from most sexually transmitted infections		
	Women can catch HIV more easily than men		
	You are more infectious for the first few weeks right after you have gotten HIV		

	The contraceptive pill prevents HIV infection		
	If you are HIV positive and pregnant, your baby can be born with HIV		
	A baby cannot get HIV from breast milk		
67	**Tick which of the following apply to you and your life**		
	I have friends who have sex with men for gifts or money		
	I sometimes think about having sex with men for gifts or money.		
	I have had sex for gifts or money		
	I really needed something so I had sex to get it		
	I would never have sex for gifts or money		
	I have friends who have a sugar daddy who is *much* older than them		
	I would like to have a sugar daddy		
	I once had a sugar daddy but it was gross, so I stopped		
	I have a sugar daddy and it is working for me for now		
	I have no option but to have a sugar daddy		
68	**Tick whether the following statements are true or not true for you**	True	Not true
	I know which kinds of grants government provides and how to access these		
	I know what to do and where to go for help if I get raped or if someone close to me gets raped		
	I know what to do and where to go for help if one of my friends/family get assaulted by their boyfriend or husband		
	I know where the nearest clinic to my house is		
	I know where I can go for an HIV test		
	I know where I can get free condoms if I needed them		
	There is someone in my RISE club I can talk to and go to for help if I have a serious problem		
	There is someone in my RISE club that I can trust to talk to about contraception		
	There is someone in my RISE club that I can trust to talk to about sex		
	There is someone in my RISE club that I can trust to talk to about pregnancy		
	There is someone in my RISE club that I can trust to talk to about HIV and other STIs		
	I have someone outside of the RISE club that I can talk to and go to for help if I have a serious problem		
	I have someone outside of the RISE club I can trust to ask about contraception		
	I have someone outside of the RISE club I can trust to ask questions about sex		
	I have someone outside of the RISE club I can trust to ask questions about pregnancy		

	I have someone outside the RISE club I can trust to ask questions about HIV and other STIs				
	In my culture, it is a man's right to discipline his wife and children by sometimes beating them				
	Most people in my community believe that it is a man's right to discipline his wife and children by sometimes beating them				
	My friends think it is okay to get drunk very often				
	I think it is okay to get drunk very often				
	Drinking only one or two drinks a day is impossible				
	Boys or men have the right to have sex with their girlfriends if they buy them gifts				
	Most of my friends believe that boys or men have the right to have sex with their girlfriends if they buy them gifts				
	If a person really loves their boyfriend or girlfriend, they will have sex with them				
	Most of my friends believe that if a person really loves their boyfriend or girlfriend, they will have sex with them				
	If you do not have a child you are of no value				
	My family believes that if you do not have a child you are of no value				
	How would you rate yourself in terms of the following:				
69	My self-confidence				
	1	2	3	4	5
	Very poor	Poor	Okay	Good	Really good
70	My leadership skills				
	1	2	3	4	5
	Very poor	Poor	Okay	Good	Really good
71	My ability to resolve conflicts				
	1	2	3	4	5
	Very poor	Poor	Okay	Good	Really good
72	My ability to help others by talking to them about their problems				
	1	2	3	4	5
	Very poor	Poor	Okay	Good	Really good

73	My ability to firmly say “no” when people ask me to do thinks I don’t want to do				
	1	2	3	4	5
	Very poor	Poor	Okay	Good	Really good
74	My courage to stand up for myself				
	1	2	3	4	5
	Very poor	Poor	Okay	Good	Really good
75	My courage to stand up for others				
	1	2	3	4	5
	Very poor	Poor	Okay	Good	Really good
76	My ability to avoid going into debt				
	1	2	3	4	5
	Very poor	Poor	Okay	Good	Really good
77	My ability to budget				
	1	2	3	4	5
	Very poor	Poor	Okay	Good	Really good