Chapter 5
HIV and Youth: A Behavioural Perspective

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5.1 Introduction

The human immunodeficiency virus (HIV) represents one of the most challenging and serious threats to the development and well-being of young people everywhere. These challenges are massively exacerbated in contexts of poverty and underdevelopment, and made worse by periods of conflict and political intransigence. This is especially true for sub-Saharan Africa, host to the largest number of people with HIV and AIDS in the world.

In this chapter, we begin by highlighting the critical importance of a continued focus on youth given the large spikes in HIV incidence in this age cohort, and also because youth continue to offer the best opportunities for prevention intervention efforts (as anti-retroviral (ARV) treatment cannot succeed on its own) and which will begin to make an impact on the scourge of HIV and AIDS. We provide arguments and evidence for a continued focus on competency enhancement and the development of resilience through strengthening the protective factors among youth. This is followed by a review of South African and relevant international evidence of effective interventions that help to address the multifaceted risk and protective factors for behaviour change to occur. By focusing on the multifaceted nature of youth risk and intervention, we hope to encourage the development of intervention models that incorporate change interventions at the individual, interpersonal, community and, more distally, at societal structural levels to impact on poverty reduction.

5.1.1 Background

While a definition of youth can vary widely, we have used an age definition that is widely used and allows for appropriate comparisons to be made. Specifically, youth refers to young people between 9 and 24 years of age (Breinbauer and Maddaleno, 2005). Youth account for 45% of all new infection of HIV globally, with almost 90% of this number living in sub-Saharan Africa (UNAIDS, 2008). The most critical finding has been that relative to 2002, when the prevalence of HIV among 15–24-year-olds was 12.0%, in 2005, the overall prevalence for 15–24-year-olds in South

P. Rohleder et al. (eds.), *HIV/AIDS in South Africa 25 Years On*,
DOI 10.1007/978-1-4419-0306-8_5,

Africa was 10.3%, with female and male rates at 16.9% and 4.4%, respectively (Shisana et al., 2005). Other nationally representative surveys have established similar rates for this age cohort (Pettifor et al., 2004). In 2007, UNAIDS reported similar declines, with a prevalence rate of 12.7% for females and 4% for males, though the overall prevalence rate had increased to 18.1% of individuals between 15 and 49 years of age (UNAIDS, 2008). In keeping with the notion that there is no 'magic bullet', it is generally accepted that multiple factors contributed to this decline.

While prevalence rates help confirm that HIV rates continue to be hyper-endemic among youth, it is incidence rates that really point to the extraordinary levels of ongoing HIV transmission in South Africa. Rehle et al. (2007a) examined 2004 antenatal data for 15–24-year-olds in a single year age cohort analysis using smoothed prevalence data. Table 5.1 shows that the incidence rates increase rapidly with age and peaks at 5.2% among 20–21-year-olds. They conclude that the HIV incidence for youth aged 15–24 years is 2.2%, which in absolute terms translates to 192,000 new infections per year. Those who reported a single sex partner in the last year were less likely to be HIV positive than those with two or more partners (incidence of 2.1% and 3.1%, respectively) as were those who reported condom use at last sex (2.9% versus 6.1%), confirming that increased number of partners and inconsistent condom use increase the risk of HIV infection in youth.

It is also unlikely that in the short term the prevalence of HIV among youth is likely to decline sufficiently. The most recent Actuarial Society of South Africa's model (ASSA, 2006) indicates that the current incidence level of HIV at age 15 is approximately 2.2%. This youth incidence rate is expected to increase year on year until 2012, when it is expected to stabilize (Table 5.2).

Table 5.1 Incidence rates from single year age cohort prevalence in 15–24 year old antenatal attendees

Age (years)	Smooth age cohort prevalence (%)	Difference in prevalence (%)	Proportion population at risk	Incidence (%)
15	9.130	–	–	–
16	10.568	1.438	0.909(90.9%)	1.6
17	13.200	2.632	0.894(89.4%)	2.9
18	16.673	3.473	0.868(86.8%)	4.0
19	20.634	3.961	0.833(83.3%)	4.8
20	24.732	4.098	0.794(79.4%)	5.2
21	28.615	3.883	0.753(75.3%)	5.2
22	31.930	3.315	0.714(71.4%)	4.6
23	34.324	2.394	0.681(68.1%)	3.5
24	36.400	2.076	0.657(65.7%)	3.2

Rehle et al. (2007a) *Assessing the Impact of HIV and AIDS Prevention and Care Programmes in South Africa.* Report to the Department of Science and Technology. Human Sciences Research Council: p. 35.

Table 5.2 Projected percentages of young people aged 15–24 who will be infected with HIV between the years 2008 and 2018

Year	Incidence (%)									
	15	16	17	18	19	20	21	22	23	24
2008	2.21	3.56	4.62	4.91	4.98	4.81	4.56	4.10	3.43	2.81
2009	2.19	3.54	4.59	4.89	4.96	4.78	4.53	4.06	3.40	2.76
2010	2.18	3.52	4.58	4.88	4.95	4.77	4.52	4.04	3.37	2.74
2011	2.17	3.51	4.57	4.87	4.94	4.76	4.51	4.03	3.36	2.73
2012	2.16	3.50	4.56	4.87	4.94	4.76	4.50	4.03	3.35	2.72
2013	**2.15**	**3.50**	**4.56**	**4.87**	**4.94**	**4.75**	**4.50**	**4.03**	**3.35**	**2.71**
2014	2.15	3.49	4.55	4.87	4.94	4.75	4.50	4.03	3.35	2.71
2015	2.15	3.49	4.55	4.86	4.94	4.75	4.50	4.03	3.55	2.71
2016	2.15	3.49	4.55	4.86	4.94	4.76	4.50	4.03	3.35	2.72
2017	2.14	3.49	4.55	4.86	4.94	4.76	4.51	4.03	3.35	2.72
2018	**2.15**	**3.49**	**4.55**	**4.86**	**4.94**	**4.76**	**4.51**	**4.03**	**3.36**	**2.72**

Source: ASSA Model, Dorrington et al. (2006)

The model estimates are derived from a default scenario that assumes that a number of intervention strategies are in place, which include information and education campaigns, improved treatment of STDs, voluntary counselling and testing, prevention of mother-to-child transmission and ARV treatment (Dorrington et al., 2006).

With the advent of ARV treatment becoming more widespread over time, there will be increasing numbers of sexually active HIV-positive youth. While most young people in South Africa acquire HIV and AIDS through risky sexual behaviour (Sinha and Kiso, 2008), specifically through unprotected sex and sex with multiple partners, there are also youth infected through vertical transmission (mother-to-child transmission or through breast feeding or postnatally). International evidence suggests that at least a third of youth will continue to engage in risky sexual behaviour after learning their serostatus (Rotheram-Borus et al., 2001). The possibility of re-infection, which may accelerate disease progression, including the presence of other STIs associated with substantial morbidity independent of HIV illness, suggests an extremely high-risk scenario among youth who are HIV positive (Gore-Felton et al., 2005).

While it is acknowledged that the provision of ARV treatment has increased tenfold in the past 5 years, Lay (2008) makes the point that in 2007, for every 5 new infections, 2 people are on treatment and that treatment alone cannot provide the basis for a response to the HIV epidemic. Multiple approaches need to be used over a period of time. Regrettably, the health and mental health services meant to accompany such prevention efforts are wholly inadequate, reaching less than 10% of at-risk individuals globally (Merson et al., 2008). Moreover, while it is generally accepted that behaviour change efforts have been instrumental in prevention successes, the absence of an effect on HIV prevalence in South Africa must give a pause.

5.2 Understanding Risk Influences for HIV Infection Through Sexual Transmission in Youth in South Africa

In sub-Saharan Africa and South Africa, where HIV is largely sexually transmitted, behaviour, which places youth at risk, involves inconsistent condom use and sexual intercourse with multiple partners, including multiple concurrent partners. Risk reduction or HIV-prevention behavioural interventions are concerned with reducing the incidence and prevalence of HIV infection through reducing these high-risk behaviours that put a person at risk.

In the context of poverty, which characterizes many communities in South Africa, there is an increase in influences for youth to engage in high-risk sexual behaviours (Brook et al., 2006; Simbayi et al., 2004). In these contexts of adversity, it is particularly important that a competency enhancement approach to HIV prevention, which promotes resiliency, through strengthening the protective factors in the face of risk, be adopted. The construct of resilience refers to a dynamic process whereby children and adolescents display a positive adaptation in the face of adverse and traumatic experiences (Luthar and Chicchetti, 2000). Building resilience in youth occurs when promotive factors are strengthened to the point where they overcome or ameliorate the negative effects of risk exposure (Fergus and Zimmerman, 2005).

Further, the impact of risk and protective influences across the life span varies according to the different development challenges associated with each developmental stage. Developmentally timed interventions that are designed to mediate temporally related risk influences are thus important. The adolescent phase across all societies is characterized by three sets of developmental transitions: biological changes as a result of the onset of puberty; cognitive changes with a shift from pre-operational thinking to more formal operations, which characterizes advanced cognitive abilities; and socio-emotional changes associated with the transition to new roles in society (Steinberg, 1999).

Risk and protective factors are multifaceted. They include individual level, interpersonal, community and societal structural factors. High-risk behaviours amongst youth are likely to be a product of the interplay of multiple risk factors at these different levels in the context of a paucity of protective influences.

Risk and protective influences at the *individual level* include physical and psychological influences, which may be a product of genetic and/or socio-environmental factors. Psychological well-being is understood as a person's belief in their own self-worth and abilities (Petersen and Govender, in press). Flay and Petraitis' (1994) understanding of how psychological health affects health-related behaviours is useful for understanding the role of these individual-level influences on sexual risk behaviour in youth. They understand self-efficacy in relation to performing a particular behaviour to be influenced in the first instance, by behavioural and emotional control, which incorporates the concept of self-regulation. The attainment of self-regulation is an important developmental task of adolescence and is achieved when youth are able to monitor and control their emotions and behaviour through cues and feedback from the outside world as well as internal cognitive assessment and affective processes (Breinbauer and Maddaleno, 2005). The ability

to self-regulate is compromised by poor cognitive abilities as well as emotional distress, with rebelliousness, delinquent behaviour, depression as well as impulsivity having been identified as risk factors for high-risk sexual behaviour for youth in the US and Europe (Brook et al., 2002; DiClemente et al., 2001; Kahn et al., 2002; Ketterlinus et al., 1992); and indirectly through association with deviant peers in South Africa (Brook et al., 2006).

Second, self-efficacy to perform health-related behaviours is also understood to be influenced by sociability (Flay and Pretraitus, 1994), which influences a person's social skills. With respect to youth, experience plays an important role in the development of self-efficacy (Breinbauer and Maddaleno, 2005), with the development of heterosexual competence being an important developmental task of adolescence. Low perceived self-efficacy with regard to sexual social situations compromises a person's ability to successfully negotiate safe sex. A review of international studies suggests that adolescents are more likely to practice safe sexual behaviours through refraining from sexual intercourse or using condoms in casual sexual encounters if they have perceived self-efficacy with respect to managing sexual situations (Breinbauer and Maddeleno, 2005).

At the *interpersonal* level, the influence of peers, parents and other significant adults such as teachers on sexual risk behaviours amongst youth are important to consider.

With regard to poor *parent–child relationships*, international studies indicate that an authoritative parenting style, characterized by high support (warmth and responsiveness) as well as high demandingness (monitoring and developmentally appropriate control) is associated with decreased sexual risk behaviour and teenage pregnancy through improved individual-level influences of greater self-control, peer resistance and decreased psychological distress (Breinbauer and Maddeleno, 2005; Pantin et al., 2004). Authoritative parenting contrasts with authoritarian parenting, characterized by high control and low support; permissive parenting, where there is high support and low control; and uninvolved or neglectful parenting, characterized by low support and low control, all of which has been found to be less protective.

Contexts of poverty threaten the protective parent–child relationship as the stressors of poverty mitigate against parental involvement as well as monitoring and control. Parents in poorer contexts internationally and in South Africa have been found to provide less warmth and structure, be less nurturing and involved, as well as provide harsher treatment in the context of setting fewer limits and behavioural controls for their children's behaviour (Govender and Moodley, 2004; McLoyd, 1990; Paruk et al., 2005; Steinberg, 1999). In general, South African adolescents report poor communication with parents about sexual matters (Eaton et al., 2003).

Several studies suggest that poor parent–child relationships increase sexual risk behaviour in youth in the South African context. Brook et al. (2006) found that poor parent–child relationships were linked to vulnerable personality and behavioural attributes of delinquent behaviour, depressed mood and rebelliousness in youth, which increased vulnerability to association with deviant peers, which was found to be associated with high-risk sexual behaviour. Nair and Campbell (2008) reported

that one of the key impediments to behaviour change in a rural area in KwaZulu-Natal was inadequate support and guidance for young people from the family unit, low involvement of parents in their children's school activities and a general struggle by parents to recognize young people as having anything of value to offer the community.

With respect to *peer influences*, negative peer influences have been identified as the strongest mediating predictor of high-risk sexual behaviour in youth, particularly for males, in South Africa (Brook et al., 2006). Given that identity development is a major developmental task of adolescence, there is a heightened need for peer group affiliation and separation from parents and individuation, as this assists in identity development.

Peer influence is therefore an important factor in adolescents' sexual decision-making and sexual risk-taking (Campbell et al., 2005). Its impact comes from both adolescents' perception of their peers' attitudes, values and sexual risk behaviours, as well as their actual attitudes and behaviours (Pedlow and Carey, 2004). Existing evidence shows that adolescents with sexually active friends are more likely to have sex themselves and to have multiple partners. By the same token, those who perceive that their peers dislike or avoid condom use are also less likely to use condoms themselves (Marston and King, 2006). It has been found, for example, that for some adolescents in South Africa, and males in particular, that there exist fairly strong levels of peer disapproval of condom use and peer pressure to be sexually active that results in reduced levels of condom use and an increase in sexual activity (Campbell and MacPhail, 2001). Morojele et al. (2006) found that South African youth engaged in drug use with peers were more prone to engage in unplanned and unprotected sexual intercourse.

It should be noted, however, that peer pressure does not have the same negative influence on all youth. In South Africa, young men appear to be influenced to a greater extent than are young women (Brook et al., 2006; Eaton et al., 2003). Among boys, peer pressure often has to do with proving manliness, or winning status and admiration by having many sexual partners, while for girls the pressure sometimes comes from sexually experienced peers who exclude inexperienced girls from group discussions because they are still 'children' (Eaton et al., 2003). Peer pressure is also not necessarily a negative influence, in that positive examples set by friends and role models can promote safer sexual behaviour. For example, studies have shown that young people whose friends favour delayed sexual initiation tend to delay sexual debut themselves (Eaton et al., 2003; Pedlow and Carey, 2004; Le and Kato, 2006).

At the *community level*, risk-enhancing social norms which emerge from peer group networks described under the interpersonal level, poor socio-economic conditions and lack of opportunities as well as a poor school environment can enhance high-risk sexual behaviour. International and local South African studies have highlighted the association between poverty and high-risk behaviour in youth (Breinbauer and Maddaleno, 2005; Brook et al., 2006; MacPhail and Campbell, 2001; Simbayi et al., 2004). Further, there is an increasing body of literature which

demonstrates the importance of school connectedness as a protective influence for youth against risk behaviour, including high-risk sexual behaviour (McNeely et al. 2002), although, to date, no such studies have been conducted in South Africa. School connectedness is associated with positive classroom management, participation in extra-curricular activities, tolerant school discipline and small class sizes.

At the *structural societal level*, socio-cultural norms and socio-economic circumstances serve as important distal influences on high-risk sexual behaviour in youth. Young girls from impoverished family and community backgrounds are at greater risk of dropping out from school, marrying at an earlier age or engaging in sex for material and economic gain (Campbell, 2003; Campbell and MacPhail, 2002, MacPhail and Campbell 2001; Richter et al., 2005; Shisana et al., 2005; Weiss et al., 2000). Evidence from various countries, including South Africa, indicates that poverty exacerbates young women's vulnerabilities to HIV infection by encouraging them to engage in transactional or commercial sex for economic survival, and to obtain money to meet education-related and other material expenses (Chatterji et al., 2005; Ganyaza-Twala and Seager, 2005; LeClerc-Madlala, 2004).

Historically, youth in sub-Saharan Africa have had many rituals to mark their entry into adulthood and their sexual inception. These rituals helped to formalize the social control of female sexuality and fertility within a marriage exchange (Van den Bergh, 2008). However, these ritual processes have undergone dramatic changes, partly through modernity and partly due to the influence of colonial and apartheid mechanisms of social control. The advent of migration and inter-ethnic marriages in Southern Africa resulted in a loss of value of these traditions. Because sexuality was controlled through these societal processes, advice about sexuality was not a parental responsibility exclusively, nor was puberty discussed, as this was part of the instructions provided at formal rituals. The formal rituals also reinforced male domination (Van den Bergh, 2008). The breakdown of family systems through labour migration in South Africa, where children were often left in the care of older siblings, appears to have further curtailed traditional instruction and diminished parent authority (established over time through gerontocratic institutions) and social sanctions (Van den Bergh, 2008).

Youth in urbanizing settings thus appear to enter into sexual life less constrained by these rituals, and the commodification of sexuality has increased youth vulnerabilities. With the movement of urbanizing societies to increasingly relying on a cash economy, the lines between reproduction, pleasure and money have also became increasingly blurred (Van den Bergh, 2008). In the context of an emerging materialist youth culture and a dominant patriarchal system, young females are increasingly vulnerable to the development of social identities, which render them vulnerable to being coerced into having unprotected sexual intercourse, with 90% of new infections in the 15–24-year age group in South Africa occurring in females (Rehle et al., 2007b).

5.3 Reviewing the Evidence for Effectiveness of Interventions at Various Levels of Influence for Youth in South Africa

While eradicating poverty and wealth inequalities at a structural societal level should remain an overarching goal in the fight against HIV infection in youth, interventions should also strive towards strengthening resilience in the context of widespread poverty and inequality through strengthening protective influences that mediate the impact of poverty on sexual risk behaviours amongst youth.

5.3.1 Individual Level

At the individual level, there has been a plethora of HIV prevention, sexual health and life-skills intervention programmes for youth in South Africa. The majority of these programmes have been implemented in schools. A review of such programmes by Mukoma and Flisher (2008) suggest that while some of these programmes demonstrate positive effects with regard to knowledge, attitudes and increased communication about sexuality, they have, however, demonstrated limited success in relation to youths' perceptions of susceptibility to infection, self-efficacy, behavioural intention or actual behaviour change.

Further, these individual level programmes have paid scant attention to personal factors such as depression, impulsivity and rebelliousness, which mediate self-efficacy and have been found to be associated indirectly with youth high-risk sexual behaviour in South Africa (Brook et al., 2006). Educational programmes alone cannot address these issues. The need for mental health programmes and services for youth in South Africa to address these issues is thus highlighted.

5.3.2 Interpersonal and Community Levels

At the interpersonal level, while studies have shown that poor *parent–child relationships* are associated with youth high-risk sexual behaviour in South Africa (Brook et al., 2006), and that protective parenting is compromised in conditions of poverty (Govender and Moodley, 2004; McLoyd, 1990; Paruk et al., 2005; Steinberg, 1999), there is a paucity of programmes aimed at strengthening the parent–child relationship in poor South African communities. Indeed, families provide the most proximal and fundamental social system for influencing positive family relations, communication about sexuality and safer sexual behaviours, as well as the monitoring of peer activities (Perrino et al., 2000). One notable programme which has had positive effects is the Collaborative HIV/AIDS Mental Health Project (CHAMP). CHAMP is a developmentally timed family intervention targeting pre-adolescent children and their caregivers with the view to strengthening the key family influences of caregiver–child connectedness, warmth and communication as well as active caregiver monitoring and control, which have been found to serve as protective factors

against sexual risk behaviour in adolescents. The outcomes of a randomized control trial in a semi-rural setting in KwaZulu-Natal showed small-to-medium positive effects with regard to improved parent–child communication about sensitive topics, improved parental monitoring and control and strengthened primary social networks for caregivers (Bell et al., 2008).

Also at the interpersonal and community levels, *peer influence* has been identified as a mediating predictor of high-risk sexual behaviour amongst youth (Brook et al., 2006). While peer education has been widely utilized in HIV prevention programmes worldwide as well as in sub-Saharan Africa, a recent review of programmes using this strategy reveals great diversity in how the concept is applied (Bastien et al., 2008). Also, there is evidence that despite being led by peers, many of these programmes adopt a purely educational didactic approach, and the content tends to focus largely on factual information about the HI virus (Campbell and MacPhail, 2002). They are thus more appropriately understood to intervene at the individual level of influence.

In South Africa, a notably large-scale educational programme using peer education methods has been provided by *Rutanang* (a Sotho word for 'learning from each other'), which was a collaboration between government, NGOs and educational institutions (Deutsch and Swartz, 2002). The collaboration aimed to set standards and review the practice for peer education in South Africa as well as provide technical assistance and to encourage implementation of *Rutanang* materials in educational settings (Deutsch and Swartz, 2002). In general, while the programme content appeared to be adequate, the application faltered because of inadequate attention to local needs and the capacity of schools (training, supervision, monitoring and evaluation) to run the programme (Ward et al., 2008).

Many peer education programmes in sub-Saharan Africa have thus merely focused on using peers to provide educational messages and have not shown better outcomes than professionally led programmes (Bastien et al., 2008). Their use in promoting protective social norms with respect to sexual behaviour has thus been limited. Notable exceptions has been the work of Campbell and MacPhail (2002), who explored the use of homogeneous peer groups in schools to stimulate awareness of how gendered identity and associated normative behaviour put youth at risk. This served as a catalyst for the renegotiation of more health-enhancing social identities and associated normative behaviour. Further, Mathews et al. (2001) explored the potential of using the 'popular opinion leader' model in high schools, as a mechanism for facilitating a change in social norms, with promising outcomes. The popular opinion leader model has its roots in diffusion of innovation theory with the idea that a popular, respected and influential member of a group network can influence social norms in their social network to the point where there is sufficient critical mass to invoke a 'tipping' in the social norms towards the alternative (Breinbauer and Maddaleno, 2005).

The coalescing of these perspectives which have demonstrated potential to facilitate the development of protective social norms relating to sexual behaviour requires further research.

Also at a community level in South Africa, there have been a number of national mass media campaigns aimed at changing social norms as well as increasing information and awareness at an individual level, using print, radio and TV media. The most well known among these include the Soul City Project (initiated in 1994), loveLife (initiated in 1999) and Khomanani (initiated in 2001). Others include TV programmes such as Gazlam, Tsha Tsha, Takalani Sesame and Beyond Awareness. The most ambitious of these, at least in terms of reach, viz., loveLife, specifically targeted young people with the idea of integrating HIV prevention messages into youth culture and by creating brand awareness. It also operated a network of telephone line clinics and youth centres that provide sexual health facilities, as well as an outreach service that travels to remote rural areas, to reach young people who are outside of the formal educational system, thus providing more community resources for youth as well.

The South African National Prevalence, HIV Incidence, Behaviour and Communication Survey (Shisana et al., 2005) showed that these programmes were well known among youth, though less so among rural youth, with most youth reporting that they found the programmes useful as a source of information. Hutchinson et al. (2007) found similar results regarding their impact on providing information but not on facilitating actual health-promoting behaviour, such as disclosure of HIV test results and condom use. Bertrand et al. (2006) review of 24 mass media studies on changing HIV-related knowledge, attitudes and behaviours in developing countries was equivocal about the mass media campaigns ability to reduce risky sexual behaviour.

5.4 Conclusion

While research related to reducing HIV prevalence among youth has accelerated significantly over the last 25 years, from school-based intervention studies to community-based interventions using randomized control trials, with the current suite of existing interventions, prevalence rates appear set to remain at current levels for a number of years (Dorrington et al., 2006).

Scaling up efforts may appear to be the answer, but what should be scaled up? It is widely accepted that a ‘complex combination of strategies and several risk-reduction options with strong leadership and community engagement that is sustained over a long period of time’ (Coates et al., 2008, p. 37) may be the best solution to what to date appears to be an intractable problem.

A review of prevention efforts for youth in South Africa reveal that the bulk have been educational and awareness programmes and campaigns either at schools, through life skills and peer educational programmes or through various forms of mass media interventions. As valuable as this type of programming may be to raise levels of knowledge and provide important information, their limited effect on the key sexual risk behaviours of inconsistent condom use and multiple

concurrent partners may require circumscribed or targeted media combined with various school-based or clinic-based programming (Bertrand and Anhang, 2006).

Programming efforts that moves beyond facilitating increased information, awareness and skills are also needed to address the risk influences that have been identified as operating at various levels. Given that negative peer influences have been identified as a strong mediator of high-risk sexual behaviour amongst youth, resources should be directed towards developing theory-driven and scientifically sound interventions to promote protective peer influences for youth at the interpersonal and community levels. The potential for using popular opinion leaders to promote the development of health-enhancing group social identities may provide one resource and requires greater exploration. Further, the relationship between family-level and personal vulnerability risk factors calls for increased attention to be paid to interventions that strengthen protective parenting practices as well as health and mental health services for youth at risk. In the final analysis, these relative risk influences for youth sexual risk behaviour must be countered against a backdrop of continued efforts to impact on the critical distal influence of poverty and wealth inequality in South Africa.

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