Gender factors associated with sexual abstenent behaviour of rural South African high school going youth in KwaZulu-Natal, South Africa

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Abstract

The cross-sectional study investigated South African rural high school learners’ choice of sexual abstinence in order to be able to develop tailored health education messages. All Grade 9 learners from one class at each of 10 randomly selected rural high schools participated. The Integrated Model for Motivational and Behavioral Change was used to elicit attitudes, social influences, self-efficacy and intentions towards sexual abstinence. Chi-square and t-tests were used for bivariate analysis. In total, 454 learners, mean age 16.7 years (standard deviation 1.41) range 14–20 years, participated, of whom 246 (54.2%) were female. When comparing learners reporting abstinence (n = 252) with those not abstinent (n = 202), abstinent learners were significantly more often females (P < 0.005), younger (16.5 years versus 17.1 years, P < 0.005) and drank less alcohol (P < 0.005). Abstaining girls believed that their friends and parents think that they should abstain from sex, that their friends abstained from sex and that abstinence helped them to mature emotionally. Abstinent boys expressed intentions to abstain from sex until marriage. Targeted intervention research is required to encourage South African rural high school learners to delay their sexual initiation to reduce their risk of human immunodeficiency virus infection. Different abstenent messages are needed for boys and girls to address the different patterns of behaviour observed.

Introduction

In Zulu culture, sexual abstinence is promoted until marriage [1, 2] and could be an additional strategy in reducing the risk of becoming infected with human immunodeficiency virus (HIV). According to the 2007 national antenatal clinic HIV seroprevalence report, ~19, 23.2 and 32% of young women <20, 25–29 and 21–24 years of age, respectively, lived with HIV in 2006 [3]. Harrison [4] suggests that young women are at a greater risk of HIV infection due to reasons ranging from poor self-image, which may contribute to acceptance of sexual aggression, peer group influences and the male dominant culture. There is an urgent need to intervene before young people become infected with HIV. Iriyama et al. [5] in their study in Nepal found that boys who perceived the severity of HIV/acquired immunodeficiency syndrome (AIDS) to be high were more likely to have strong intentions to abstain from sex. Further the media might also influence whether or not young people abstain from sex [6].

A study in KwaZulu-Natal, South Africa, found that many young girls expressed positive attitudes towards abstinence, citing protection from pregnancy and sexually transmitted infections (STIs) as reasons [2]. In the study, younger girls perceived having sex at their age as inappropriate. Among older sexually experienced girls, a minority supported...
secondary abstinence. The 1998 South African Demographic and Health Survey estimated the percentage of teenage pregnancy to be \(\sim 16.4\%\). Of these pregnancies, \(\sim 21\%\) were in non-urban areas [7]. Santelli et al. [8] found varying definitions of abstinence, which ranged from (i) postponing sex, (ii) never having had vaginal sex and (iii) secondary abstinence—refraining from further sexual intercourse, if sexually experienced (i.e. ever had sexual intercourse). This paper refers to all three forms of sexual abstinence. Girls however experienced pressure from their peers and boyfriends to engage in sex [2]. A study in United States found that youth aged between 13 and 17 years were much less likely to initiate sexual intercourse if their parents taught them to say no, set clear rules, talked about what is right and wrong and about delaying sexual activity [9].

A review by Underhill et al. [10] of abstinence-only programmes in high-income countries showed inconclusive results as to whether these programmes were effective in encouraging young people to abstain from sex. Eaton et al. [11] reported that a significant number of young South Africans start engaging in sex while they are still in their teens, and thus put themselves at risk of getting infected with HIV and AIDS. Knowledge gaps and misconceptions about HIV and AIDS were found to be substantial [11]. This illustrates the need to continue educating young people about HIV and AIDS and also to equip them with skills to help them protect themselves from being infected. About 80% of the population in KwaZulu-Natal are first language isiZulu speakers [12]. The rationale for this study was the lack of information about sexual abstinence and its determinants among South African school-going adolescents.

This study therefore investigated the prevalence of sexual abstinence among learners (14- to 20-year olds) from rural areas in KwaZulu-Natal. The first goal was to analyse the differences in gender perceptions about abstinence between abstaining and non-abstaining adolescents. Since we furthermore hypothesized girls to hold more positive beliefs towards abstinence given their risks of pregnancy and vulnerability to HIV infection, the second goal was to analyse differences between male and female adolescents regarding abstinence and to make recommendations about developing tailored educational messages for the two groups.

The model selected to investigate the determinants of sexual abstinence was the Integrated Model for Motivational and Behavioural Change (I-Change Model) (Fig. 1) [13]. This model posits that a person’s behaviour is a result of his/her intentions and abilities and that the person’s abilities and the environmental factors determine whether such intentions will be realized. Motivating factors, such as attitudes, social influences and self-efficacy, determine intention. Thus, a teenager motivated to abstain from sex needs to be convinced of the advantages of abstaining from sex and to feel confident about achieving this goal. The motivating factors are determined by various predisposing factors, information factors (the quality of messages, channels and sources used) and awareness factors (knowledge, risk perceptions and cues to action) [13–15]. This study therefore investigated the motivating factors and also investigated exposure to media.

### Methods

#### Setting

A cross-sectional study design was carried out in a rural area, namely Ugu District (in southern KwaZulu-Natal) in 2004. This district was selected because it is similar to other rural areas in KwaZulu-Natal where the majority of the population (60%) resides [12].

#### Participants

Grade 9 learners from rural co-educational high schools, aged 14–20 years (since compulsory education was only initiated in 1996, the age range of children attending school is wide), were selected for the study. South African schools have learners older than 20 years, who were excluded from the study. Ten of 28 schools were randomly selected and all participated. Therefore, the estimated sample size was a total of 450 learners. The school was taken as the unit. This sample size was selected since...
two-thirds of learners are likely to be sexually abstinent [16] and was calculated using Epi Info 6.04 for unmatched cohort and cross sectional studies at an alpha (α) of 0.05 and beta (β) of 0.8.

One randomly selected class per school of all the grade 9 classes was selected, and all these learners were invited to participate. All learners in class on the day participated in the study and the attendance was estimated to be 95%. Grade 9 learners were chosen for this study, since this is the stage where most young people start experimenting with different behaviours, such as sex and drugs [11, 16].

**Questionnaire**

An anonymous self-reported structured questionnaire was used as the data collection tool in the vernacular language of the learners (isiZulu). Trained research assistants of a similar age group to the respondents and also fluent in isiZulu administered the questionnaire. The research assistants read instructions as to how the questionnaire was going to be filled. The respondents completed the questionnaire during regular school hours in the absence of a teacher to ensure confidentiality. All the questions were read to the participants by the facilitators and took approximately 40 min to complete the 60 questions. The questionnaire was then placed in an envelope by the learner and sealed.

**Sexual abstinence**

The main dependent variable ‘sexual abstinence’ was measured using a question ‘Have you voluntarily chosen to abstain?’ This question was answered by either ‘yes’ or ‘no’. Sexual abstinence in our study was defined as not having penetrative sex, since this is the accepted definition of abstinence in Zulu culture. An algorithm was created for true sexual abstinence, where true sexual abstinence was defined as not having had vaginal sex, anal sex, not sexually active now and having answered yes for sexual abstinence. This was done to reduce possible social desirability bias, since some participants could have reported abstinence but at the same time report being sexually active.

The questionnaire used the I-Change Model to investigate the different constructs of attitudes,
social influences, self-efficacy and intentions about sexual abstinence. The responses were coded using a five-point Likert scale from 1 = strongly disagree, 2 = disagree, 3 = do not know, 4 = agree and 5 = strongly agree. Learners who reported ever having sex and also that they were currently abstaining were considered as being secondary abstinent.

Demographic data, sexual behaviour and substance use

The questionnaire was developed to collect demographic information about learners, such as age, gender, religion, with whom the learners live at home and their school marks obtained the previous year. The questionnaire also included questions about their perceptions about relationships, and sexual behaviours were assessed using the following questions that asked about frequency of having vaginal sex, oral sex, anal sex and non-penetrative thigh sex (four-point scale ‘never, rarely, sometimes, always’) and age of sexual initiation. The learners were also asked about the use of substances like alcohol, cigarettes, benzine, thinners and other drugs, and the responses were coded as do not use (0), use occasionally (1), use on weekends only (2), use during the week and weekends (3) and use daily (4). In order to ascertain the risk of having sex, learners were asked if they had a partner and the responses were coded with no (0) and yes (1).

This survey is based on self-reported data and also asked questions that may be considered sensitive by some individuals and therefore could have introduced bias such as recall bias and social desirability bias. Questions answered in a school setting where there are large numbers of learners in a class have implications regarding privacy and confidentiality. This might lead to individuals not being comfortable in answering honestly some of the questions asked in the questionnaire or not answering them at all. To try and reduce possible bias, the questionnaire was answered in the absence of an authority figure (i.e. school teacher), and young people (first language Zulu speakers) were trained and used as facilitators in the questionnaire administration.

Ethics approval

Ethical approval for the study was obtained from the Ethics’ Committee, Nelson R Mandela School of Medicine, University of KwaZulu-Natal. Permission to conduct the study was obtained from the KwaZulu-Natal Department of Education and Culture and from the school principals. Written informed consent was obtained from the parents of the learners and also from the learners themselves. There were no refusals.

Data analysis

Reliability scales for the attitude, social influences, self-efficacy and intention variables were developed using Cronbach’s alpha for each scale (see Table I). Other variables included were a media scale (which included watching South African television programmes Yizo Yizo, Gaz’ Lami and Simunye which had somewhat sexually explicit content), age, alcohol use and school marks obtained the previous year. The sample was then stratified according to gender.

Data from the questionnaire were double entered (for validation purposes) using the Epi Info 6.04 software package. SPSS 11.5 software package was used to analyse the data. Chi-square was used for bivariate analysis for demographic data in respect of religion, the person the learners live with and the composition of males and females in the sample with respect to abstainers and non-abstainers. t-test and covariate analyses were conducted to compare abstainers and non-abstainers in terms of attitudes, social influences and self-efficacy about sexual abstinence correcting for age and alcohol use because there were statistically significant differences between abstainers and non-abstainers. These analyses were done for each sex (boys versus girls) and abstinence groups (abstainers versus non-abstainers) for the same reason.

Results

Description of the sample

In total, 454 learners participated, mean age 16.9 years (standard deviation 1.5) whose ages ranged
from 14 to 20 years, but more than two-thirds (67.6%) were between 16 and 18 years. Of the sample, more than half (54%) of learners were females. Most of the learners were Christian (88.1%, \( n = 384 \)) (see Table II). Few (0.9%) of the learners were married. About a third (29.7%) of the respondents considered themselves to have performed above average (60–69%) in the previous year’s examinations. More than two-thirds of the total sample reported that their mother always came back home everyday, but only 43.7% reported that their fathers returned home daily. Of the learners, 55.5% reported sexual abstinence and 1.6% (\( n = 4 \)) of learners (females) in the sample reported secondary abstinence.

**Demographic determinants of abstinence**

When comparing adolescents reporting to be abstinent (\( n = 252 \)), with those not abstinent (\( n = 202 \)), abstinent adolescents were significantly younger (\( P < 0.005 \)) (see Table II). In this sample, religion was not a significant predictor of abstinence, neither was living with a parent or both parents or parents’ educational level nor whether the mother came home daily. There was no significant difference between the abstainers and non-abstainers in terms of their reported academic achievements the previous year. Furthermore, abstinent adolescents were significantly more often female (\( P < 0.005 \)). Among females (\( n = 246 \)), abstainers were significantly younger than non-abstainers (\( P < 0.005 \)). Among males (\( n = 208 \)), although abstainers were younger than non-abstainers, these differences were of borderline significance (\( P < 0.054 \)). Abstainers reported less frequent use of alcohol than non-abstainers (\( P < 0.005 \)). Male learners reported significantly more frequent use of alcohol (0.39) than female learners (0.20) (\( t = -2.770 \), degrees of freedom = 295.004, \( P < 0.01 \)). Abstainers reported less frequent use of cigarettes than non-abstainers, but this difference was of borderline significance (\( P = 0.056 \)).

**Sexual behaviour**

Of the total population, over a quarter of the learners reported to have ever had sex (see Table II). This study also found that 72.4% of boys reported having ever had sex whereas 27.6% of girls were sexually experienced (\( P < 0.005 \)). Under a quarter (24.5%) were currently sexually active. Over 70% of learners reported never having had sex (see Table II). Sexual initiation started significantly earlier among boys (mean age 13.9 years) than girls (mean age 15.6 years) (\( P < 0.05 \)).

**Attitudes, social influences, self-efficacy and intention determinants of abstinence**

**Abstainers versus non-abstainers**

Since there were significant differences between abstainers and non-abstainers in terms of age and alcohol use, covariate analyses were done allowing for these differences. Table III therefore presents the results of the covariate analyses.
When comparing abstainers with non-abstainers (Table III), only one belief held for both boys and girls in that abstainers were more convinced that abstinence would help them to mature emotionally. Abstaining girls perceived more advantages than non-abstaining girls because they encountered more positive social norms to abstain from friends and parents and knew more friends who abstain. Within the male population, abstaining boys reported a stronger norm not to have a sexual relationship than non-abstaining boys. A trend was found in that abstaining girls felt more confident than non-abstaining girls to abstain from sex when pressured by their partner \( (P < 0.06) \). Abstaining boys reported stronger intentions to abstain in the future \( (P < 0.01) \).
Table III. Comparing determinants of abstinence, correcting for age and alcohol use, between abstaining and non-abstaining learners by sex (mean scores)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Girls</th>
<th>Non-abstainers</th>
<th>F-test</th>
<th>Boys</th>
<th>Non-abstainers</th>
<th>F-test</th>
<th>Abstainers</th>
<th>Non-abstainers</th>
<th>F-test</th>
<th>Girls versus boys</th>
<th>F-test</th>
<th>Girls versus boys</th>
<th>F-test</th>
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<td>Helps me lower risk of pregnancy</td>
<td>4.41</td>
<td>4.21</td>
<td>3.04</td>
<td>4.12</td>
<td>4.07</td>
<td>0.12</td>
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<td>Helps me lower risk of HIV</td>
<td>4.19</td>
<td>4.07</td>
<td>0.24</td>
<td>3.82</td>
<td>3.62</td>
<td>1.01</td>
<td>2.96</td>
<td>4.23*</td>
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<td>Does not mean I don’t love my partner</td>
<td>4.38</td>
<td>4.19</td>
<td>2.18</td>
<td>4.06</td>
<td>3.87</td>
<td>0.83</td>
<td>4.03*</td>
<td>2.37</td>
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<tr>
<td>Helps me mature emotionally</td>
<td>4.45</td>
<td>3.73</td>
<td>21.99**</td>
<td>4.10</td>
<td>3.39</td>
<td>7.37**</td>
<td>4.35*</td>
<td>1.62</td>
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<td>Friends think I should abstain</td>
<td>3.84</td>
<td>3.38</td>
<td>6.58*</td>
<td>3.03</td>
<td>3.00</td>
<td>0.06</td>
<td>14.70**</td>
<td>2.59</td>
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<td>Parents think I should abstain</td>
<td>4.51</td>
<td>3.96</td>
<td>10.66**</td>
<td>3.91</td>
<td>3.51</td>
<td>3.09</td>
<td>14.04**</td>
<td>3.98*</td>
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<td>Friends abstain from sex</td>
<td>3.44</td>
<td>2.96</td>
<td>7.32**</td>
<td>3.06</td>
<td>2.82</td>
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<td>Parents abstained from sex at my age</td>
<td>3.34</td>
<td>3.15</td>
<td>2.61</td>
<td>3.00</td>
<td>3.05</td>
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<td>Family thinks I should not have a sexual relation now</td>
<td>3.73</td>
<td>3.56</td>
<td>0.18</td>
<td>3.63</td>
<td>3.10</td>
<td>5.37*</td>
<td>0.23</td>
<td>3.93*</td>
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<td>Friends think I should not have a sexual relation now</td>
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<td>2.90</td>
<td>1.68</td>
<td>2.90</td>
<td>2.71</td>
<td>0.71</td>
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<td>Peers pressure me to have a sexual relation</td>
<td>2.32</td>
<td>2.06</td>
<td>3.56</td>
<td>2.84</td>
<td>2.63</td>
<td>2.29</td>
<td>7.00**</td>
<td>7.28*</td>
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<td>From TV I feel one should have a sexual relation</td>
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<td>2.92</td>
<td>2.30</td>
<td>2.98</td>
<td>3.30</td>
<td>2.00</td>
<td>0.33</td>
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<td>Self-efficacy</td>
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<tr>
<td>Confident that I can abstain from sex</td>
<td>4.42</td>
<td>4.33</td>
<td>0.54</td>
<td>3.94</td>
<td>3.62</td>
<td>1.56</td>
<td>8.84**</td>
<td>11.32**</td>
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<td>Confident that I can abstain from sex when in love</td>
<td>4.22</td>
<td>4.09</td>
<td>0.29</td>
<td>3.65</td>
<td>3.22</td>
<td>3.16</td>
<td>9.66**</td>
<td>18.97**</td>
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<td>Confident to abstain from sex when pressured by partner</td>
<td>4.11</td>
<td>3.80</td>
<td>3.63</td>
<td>3.73</td>
<td>3.39</td>
<td>1.40</td>
<td>3.95*</td>
<td>2.54</td>
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<td>Confident to abstain from sex when drunk</td>
<td>3.81</td>
<td>3.68</td>
<td>0.55</td>
<td>3.15</td>
<td>3.21</td>
<td>0.04</td>
<td>8.94**</td>
<td>5.16*</td>
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<td>Confident to abstain from when I have known partner for 6 months</td>
<td>4.07</td>
<td>4.14</td>
<td>0.12</td>
<td>3.19</td>
<td>3.25</td>
<td>0.07</td>
<td>15.56**</td>
<td>16.53**</td>
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<tr>
<td>Intend to abstain from sex in the next 6 months</td>
<td>3.50</td>
<td>3.63</td>
<td>0.36</td>
<td>3.04</td>
<td>3.14</td>
<td>0.09</td>
<td>3.82</td>
<td>3.15</td>
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<tr>
<td>Intend to abstain from sex next year</td>
<td>3.49</td>
<td>3.54</td>
<td>0.02</td>
<td>3.04</td>
<td>2.83</td>
<td>0.35</td>
<td>3.80</td>
<td>5.65*</td>
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<tr>
<td>Intend to abstain from sex while at school</td>
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<td>3.68</td>
<td>0.82</td>
<td>2.98</td>
<td>2.97</td>
<td>0.11</td>
<td>4.08*</td>
<td>5.44*</td>
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<tr>
<td>Intend to abstain from sex till married</td>
<td>4.49</td>
<td>4.27</td>
<td>1.49</td>
<td>3.71</td>
<td>2.99</td>
<td>8.00**</td>
<td>20.59**</td>
<td>22.87**</td>
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Ranking: 1 = strongly disagree, 2 = disagree, 3 = don’t know, 4 = agree and 5 = strongly agree.

*P < 0.05, **P < 0.01.
Boys versus girls

Girls held more positive attitudes in favour of abstinence. Abstaining girls had more positive attitudes than abstaining boys that abstinence would help them to reduce the risk of pregnancy, and assist them to mature emotionally, and also did not mean that they did not love their partner. The difference in the belief that abstinence may reduce HIV risk was stronger in girls of the non-abstaining group ($P < 0.05$) than in abstaining girls ($P < 0.09$) but girls always reported stronger beliefs than boys.

Abstaining girls reported more social support to abstain than abstaining boys and encountered more positive norms towards abstinence from friends. They also reported that more of their parents abstained when they were at their age. Abstaining girls reported less pressure to engage in sexual relationships than abstaining boys. This was also reported by more non-abstaining girls in comparison with non-abstaining boys. Within the non-abstaining group, girls also reported more positive norms from their parents and family.

With regard to confidence to abstain, abstaining girls were much more confident to abstain from sex, when in love, when pressured by their partner, when drunk and when they had known their partner for 6 months than abstaining boys ($P < 0.01$). Non-abstaining girls reported higher self-efficacy levels than boys, but not when pressured by their partners.

With regard to their intentions both for the abstaining and the non-abstaining group, a similar pattern was found showing that girls held stronger intentions to abstain than boys.

Discussion

Boys and girls in this study expressed differences in respect of the determinants of abstinence. This study also found that girls were more abstinent than boys and that boys started engaging in sex early. These findings are confirmed by Aten et al. [17] who also found that boys were more sexually active than girls. Such findings have implications in terms of developing targeted interventions for boys and girls.

Studies among learners attending KwaZulu-Natal public high schools indicate that many youth become sexually active before they reach high school [18–20]. This early age of sexual initiation has also been reported in the United States, where boys reported their age of sexual initiation to be younger (12.12 years) than that of girls (14.56 years) [21]. Interventions to encourage adolescents to remain sexually abstinent are therefore required early before the age of sexual initiation [18, 20–22], and then need to continue through their adolescent years, until they are able to critically make informed decisions about sexual activity.

A study in the Soroti district of Uganda found that there was a significant drop in the number of young people (average age of 14 years) reporting to be sexually active from 42.9 to 11.1% in a period of 2 years after the intervention. This is a district with a history of civil unrest for a period of ~8 years and an economy that was underperforming because of the unrest. In that study, they found that the adolescents’ reasons to abstain were associated with a rational decision-making model, rather than a punishment model [22].

Among other factors that could be expected to influence sexual abstinence are religious beliefs. However, in this study religious beliefs did not appear to have a significant influence on whether to abstain or not. Similar results were observed in a Ugandan study, where a controlled trial to test an intervention to improve knowledge and communication about sexuality among adolescents was conducted [22]. This, however, seems to be in contradiction with what is known to be advocated by most religious groups and faith-based organization [23, 24]. Paul et al. [25], however, found that persistent involvement in church activities was a predictor of sexual abstinence, rather than just being affiliated with a religious organization. A limitation of this study was that it only measured religious affiliation rather than religious involvement or observance, which would influence abstinence from premarital sex on moral grounds.

Alcohol use is another important factor influencing abstention from sex. In this study, there were significant differences between abstainers and
non-abstainers in terms of alcohol use, and male learners used more alcohol than female learners. These findings were confirmed by a recent study by Reddy et al. [26] which also reported more male use of alcohol than females. Interventions promoting abstinence therefore need to address alcohol use as a factor.

Both abstaining boys and girls were more convinced that abstinence helps one to mature emotionally. However, there were notable differences between abstaining boys and girls in their beliefs about abstinence. Other studies have reported that interventions focused at raising awareness in terms of how abstinence could help adolescents prevent getting infected with HIV/AIDS and also getting pregnant [27–30]. These interventions had some success, especially among youth of younger ages and particularly females.

Positive social norms about sexual abstinence were found among the abstaining group (especially girls). These findings emphasize the importance of support from significant others in order for abstinence from sex messages to work in rural KwaZulu-Natal. Review of Rector [31] of abstinence programmes also found that in one of the programmes that also promoted parental involvement in their children’s sexuality, the programme was able to reduce the amount of sexual activity from 46.6 to 31.6% among 15-year olds. This is useful information to be considered when developing effective interventions and when thinking about support systems for adolescents. Although the abstainers felt pressure from their peers not to abstain from sex, they still abstained. This might be because of the support that the abstainers got from their families and friends helped them overcome pressure from their peers.

It is surprising to learn that even though more than half of the abstainers reported having a boy/girlfriend, they were still confident of abstaining from sex even when pressured by their partners. One would expect that it would be difficult for young people to resist pressure from their partners when they want them to have sex, as some studies have shown [32–36]. More still needs to be done in trying to understand the dynamics and types of relationships that these young people engage in and to try and understand why abstainers still abstained from sex even when they experienced pressure. Although TV programmes were of borderline significance, they are still important to consider in interventions as there is evidence to support their possible negative role [6, 37–39]. Parents should be aware and offer guidance regarding the TV programmes viewed by children.

Devaney et al. [40] have documented the effectiveness of abstinence programmes in changing attitudes, raising awareness about the consequences of risky behaviours, improving communication skills between adolescents and their parents and also improving refusal skills as to how adolescents can resist pressure from their peers. They have also shown that abstinence programmes do not only focus on abstinence from sexual activity but also teach adolescents goal setting, ability to establish good long-lasting relationships, and in some cases understanding and appreciation for the institution of marriage, especially for those youths that come from single parent households. This study found that both abstaining boys and girls expressed intentions to abstain till marriage.

Underhill et al. [10] in their review of sexual abstinence-only programmes in high-income countries reported mixed results about the success of such programmes. However, rural KwaZulu-Natal’s context is different from that of high-income countries and the effectiveness of such programmes is yet to be tested.

Interventions also need to consider developing different abstinence interventions for boys and girls. Interventions targeted at encouraging females to abstain should focus on social influences (which include perceptions of friends and parents about abstinence from sex, and also parental support), and intervening early before the age of sexual initiation. For males, interventions should include skills on resisting pressure not to abstain and also changing and creating positive attitudes towards sexual abstinence [29]. The importance and involvement of significant others in the lives of young people should be explored in intervention development, since they can offer support to young people and also act as role models [29, 41].
Conclusion

At a time when the HIV and AIDS pandemic is devastating sub-Saharan Africa, delaying the age of sexual debut can contribute to the prevention of the spread of HIV. This can help improve the life prospects of learners and allow them to mature emotionally. Sexual abstinence can also contribute positively to prevention efforts towards teenage pregnancy and thus reduce the negative impact of pregnancy on girls’ lives. It can also help reduce the prevalence of STIs among young people that have serious consequences (including infertility), if untreated, and may be incurable (for example, genital herpes).

This study provides an understanding of learners’ perspective of sexual abstinence, which can contribute towards developing targeted interventions to encourage and reinforce behaviour change. There is a need to work with learners, and more widely, to engage parents, teachers and the community in order to encourage and create support for learners to abstain from sex.

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References


