Contraceptive use and associated factors among South African youth (18 - 24 years): A population-based survey

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Background. Despite ongoing campaigns and intervention programmes promoting safe sex, contraceptive use remains a controversial area among South African youth.

Aim. To investigate contraceptive use and associated factors among South African youth aged 18 - 24 years who reported having had sexual intercourse.

Method. Young South Africans (3 123 subjects aged 18 - 24 years) in four provinces responded to a cross-sectional population-based household survey.

Results. Among women who reported to be currently using contraception (89.1%), 9.3% were using the Pill, 5.2% the intra-uterine contraceptive device, 25.6% injectables, 57.6% male condoms, 5.9% female condoms, and 8.9% dual methods; other methods used were the rhythm method (7.0%), withdrawal (11.5%), and emergency contraception (5.5%). In multivariable analysis among women, ease of getting condoms and not having had early sex (below 15 years of age) were associated with contraceptive use. Among men, better knowledge about contraceptives, having talked with the partner about condoms in the past 12 months, loveLife and multimedia programme exposure were associated with contraceptive use in univariate analysis, while none were retained in the multivariable model.

Conclusion. Communicating with the partner about condom use, education and being employed were significantly associated with contraceptive use. However, use of contraceptives is still low, and this is substantiated by the high rate of unwanted pregnancies reported. It is clear that more vigorous, effective and meticulous means of promoting contraceptive use need to be explored, enabling youth to take control of their reproductive health and make informed decisions.

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The high rate of unintended pregnancies in South Africa, particularly among the youth, remains a public health concern, as they indicate that young people are still engaging in unprotected sex. The South African Department of Health revealed that in 1998 about 35% of young South African women had been pregnant or given birth by the age of 19, and since then this number has almost doubled.[1] This increase was substantiated by the findings of a study on contraceptive use and pregnancy among 15 - 24-year-old South African women, which reported that 65% of pregnancies in this age group were premarital and unplanned.[2] Comparable results were found among South African HIV-positive women, who alone were reported to account for an estimated annual 220 000 unintended pregnancies.[3]

Knowing about family planning and accessing it are the crux of safe, responsible sexual behaviour. They should have the effect of decreasing unintended and/or unwanted pregnancies, since contraceptives help women manage their reproductive health.[2,4] The 2003 South African Demographic and Health Survey (SADHS) indicated that about 97% of sexually active women in South Africa have knowledge of at least one contraceptive method.[5] However, in 2007 the prevalence of contraceptive use by young people aged 15 - 24 years was 52.2%.[2] These findings indicated that about half of these young people were not using contraceptives.

The aim of this study was to investigate contraceptive use and associated factors among South African youth (aged 18 - 24 years).

Methods
Sample and procedure

A cross-sectional population-based household survey was conducted using a multistage stratified cluster sampling approach. In each household all eligible members were invited to participate and interviewed. The survey included persons aged 18 - 24 years

living in South African households in 4 (out of 9) selected provinces (KwaZulu-Natal, Mpumalanga, the Eastern Cape and Gauteng), providing a representation of both urban and rural South Africa.

Ethical approval for the study was obtained from the HSRC Research Ethics Committee. Participants signed informed consent forms.

Data analysis

Data analysis consisted of both descriptive and inferential statistics. Weighted data were analysed using STATA software, taking into account the complex multilevel sampling design. STATA software (svy methods) was used to obtain the estimates of key indicators, significance values (p-values) and confidence intervals (95% CIs) that take into account the complex design and individual sample weights. Computed estimates and odds ratios (ORs) were reported with 95% CIs, and a two-sided p-value of 0.05 was used as the cut-off point for statistical significance. In this analysis the sample was restricted to men and women who had been sexually active in the past 12 months. Associations between the key outcome of contraceptive use, individual, social and structural variables and prevention programme exposure were evaluated by calculating the OR. Unconditional multivariable logistic regression was used to evaluate the impact of explanatory variables for key outcome current contraceptive use (binary dependent variable). Contraceptive use was defined as using at least one of the following: the Pill, the intra-uterine contraceptive device (IUCD), injectables, male condoms and female condoms. All variables statistically significant at the $p<0.05$ level in bivariate analyses were included in the multivariable models.

Results

Survey response rate

A total of 5 768 households were sampled and approached for the interview. Only 94.8% of households were valid, and of the valid householders 93.6% agreed to be interviewed. Of the valid households, 47.2% included a person aged 18 - 24 years and were eligible for an individual interview; 1.3% of these individuals refused the individual interview and 2.3% were absent from the household, giving a final response rate of 96.4%.

Sample characteristics

The total study sample comprised 3 123 young people, aged 18 - 24 years, from 4 of the 9 provinces in South Africa (Eastern Cape, Gauteng, KwaZulu-Natal and Mpumalanga). Almost all (97.5%) were black Africans. Of the total sample, 954 men and 831 women reported having had sex in the past 12 months. Of the women who reported to be currently using contraception (89.1%), 9.3% were using the Pill, 5.2% the IUCD, 25.6% injectables, 57.6% male condoms, 5.9% female condoms and 8.9% dual methods; other methods used were the rhythm method (7.0%), withdrawal (11.5%) and emergency contraception (5.5%). Men who stated that they were currently using contraception (92.0%) said that their partners were using the Pill (15.3%), the IUCD (0.4%) and injectables (18.7%); they also reported using male condoms (87.0%), female condoms (3.0%), dual methods (14.3%), the rhythm method (6.2%), withdrawal (14.5%) and emergency contraception (3.9%). Overall, 2.1% of men and 5.3% of women reported having been diagnosed with a sexually transmitted

infection (STI) in the past 12 months, and among those who had been tested for HIV and indicated their test result, 9.3% of the women and 6.2% of the men were HIV positive.

Youth programme exposure was assessed in terms of face-to-face participation and media programme exposure. Of the subjects 32.6% had participated in one or more loveLife face-to-face programmes, while more than 80% had been exposed to two or more loveLife HIV prevention media programmes (Table 1).

Predictors of contraceptive use

Univariate analyses found that among women, not having been pregnant, higher education, better accessibility of condoms, being HIV negative, not having had an STI in the past 12 months and not having had early sex (below 15 years of age) were associated with current contraceptive use, while programme exposure was not associated with contraceptive use. In multivariable analyses it was found that only better accessibility of condoms and not having had sex at an age below 15 years were associated with current contraceptive use in women.

Further, univariate analyses among men found that higher contraceptive knowledge, having talked with the partner about condoms in the past 12 months, loveLife participation and loveLife multimedia programme exposure were associated with contraceptive use, while none were retained in the multivariable model (Table 2).

Discussion

The findings of the current study indicate that the use of contraceptives remains a highly contested realm among most adolescents, and that even factors that served as predictors of contraceptive use in previous studies are no longer significant. It was a concern that being HIV positive, having been diagnosed with STI in the past 12 months, having concurrent sexual partners and early sexual debut were strongly associated with less likelihood of using contraceptives, particularly among women. Although participants had high knowledge of various methods of contraception, knowledge was not a strong determinant of contraception use. These findings could indicate that these young women did not use condoms to prevent HIV or other STIs.

Another finding that was a concern in the current study was that although 34.5% of males and 79.1% of females reported having had unwanted pregnancies, they were not motivated to use contraceptives. In contrast to the findings of an earlier study[6] in which previous pregnancy was associated with use of contraceptives, the results of this study reflect that females and males who reported ever being pregnant or making someone pregnant were three times and twice less likely, respectively, to be using contraceptives.

One positive finding was that, similar to the findings of previous studies, talking to a partner about condom use, education and employment were associated with contraceptive use, while difficulty in accessing condoms was associated with less likelihood of using contraceptives. These findings can be used for family planning programming among youth.

Table 1. Individual, social, structural, contraception and prevention programme exposure of study sample by gender

	Male (*N*=954)	Female (*N*=831)
Individual		
Current contraceptive use (*n* (%))	832 (92.0)	682 (89.1)
Contraceptive knowledge (mean (SD)) (range 0 - 7)	4.7 (1.7)	5.2 (1.4)
Ever made someone pregnant/been pregnant (*n* (%))	226 (24.0)	418 (41.4)
Made someone pregnant/been pregnant more than once (*n* (%))	63 (4.8)	96 (22.4)
Partner pregnant/pregnant currently (*n* (%))	33 (6.4)	41 (10.4)
Unwanted pregnancy (*n* (%))	58 (34.5)	328 (79.1)
Persuaded someone to terminate pregnancy/terminated pregnancy (*n* (%))	29 (7.2)	32 (6.6)
Diagnosed with an STI in the past 12 months (*n* (%))	45 (2.1)	40 (5.3)
Diagnosed HIV positive (*n* (%))	26 (6.2)	40 (9.3)
Low self-esteem (*n* (%))	54 (5.0)	55 (4.4)
No sense of future (*n* (%))	308 (26.3)	279 (39.0)
Partner risk reduction self-efficacy (mean (SD)) (range 4 - 16)	13.7 (2.6)	14.1 (2.5)
Social		
Social network resources (*n* (%))		
Low	92 (7.1)	121 (16.5)
Medium	534 (57.1)	424 (52.6)
High	300 (35.7)	249 (31.0)
Peer pressure (*n* (%))		
Low	286 (30.5)	383 (47.2)
Medium	465 (49.6)	328 (40.4)
High	186 (19.9)	100 (12.3)
Sexual attitudes (*n* (%))		
Low	286 (13.6)	195 (28.2)
Medium	465 (44.8)	341 (46.2)
High	186 (41.4)	264 (25.6)
Talked with partner about condoms in past 12 months (*n* (%))	820 (94.1)	769 (90.7)
Female role pressure (mean (SD)) (range 3 - 12)	N/A	3.8 (1.7)
Female reproduction communication (mean (SD)) (range 0 - 5)	N/A	3.5 (1.4)
Structural		
Poverty index (mean (SD)) (range 6 - 24)	8.3 (3.0)	7.9 (2.6)
Grade 11 or less (*n* (%))	369 (28.5)	295 (37.7)
Grade 12 or more (*n* (%))	579 (71.5)	533 (62.3)
Student (*n* (%))	386 (42.3)	283 (45.6)
Employed (*n* (%))	185 (24.4)	100 (12.4)
Unemployed (*n* (%))	316 (33.3)	370 (42.0)
Difficulty of getting condoms (mean (SD)) (range 1 - 4)	1.22 (0.6)	1.13 (0.5)
Women vulnerability index (mean (SD)) (range 11 - 44)	N/A	26.5 (4.8)
Lack of relationship control (mean (SD)) (range 4 - 16)	8.4 (2.4)	8.0 (2.5)
Risk behaviour		
Early sex (<15) (*n* (%))	128 (18.1)	55 (6.9)
Ever experienced forced sex (*n* (%))	14 (1.3)	48 (7.0)
No. of lifetime sexual partners (mean (SD)) (range 0 - 75 for men and 0 - 30 for women)	6.2 (6.9)	3.3 (2.9)
Two or more sexual partners in past year (*n* (%))	522 (50.1)	199 (15.5)
Inconsistent condom use with last irregular sexual partner (*n* (%))	149 (24.3)	116 (56.7)
Sex with much older partner (*n* (%))	67 (4.7)	196 (19.0)
Sexual intercourse frequency in past month (*n* (%))		
0	189 (14.0)	185 (22.6)
1 - 5	420 (44.1)	380 (51.0)
≥6	253 (41.9)	182 (26.4)
Last relationship 4 months or longer (*n* (%))	804 (87.4)	739 (94.5)
Concurrent sexual partners (*n* (%))	124 (6.8)	53 (3.1)
Programme exposure		
One year or more loveLife participation (*n* (%))	266 (22.0)	214 (24.4)
loveLife face-to-face participation (*n* (%))		
0	587 (70.2)	516 (58.4)
2 - 4	194 (12.5)	173 (25.2)
5 - 9	83 (7.9)	56 (4.7)
≥5	81 (9.5)	83 (11.7)
loveLife multimedia programme exposure (*n* (%))		
0 - 1	130 (14.9)	134 (19.0)
2 - 4	510 (52.5)	385 (45.6)
5 - 9	283 (32.6)	316 (35.4)
Gone to loveLife clinic (*n* (%))	111 (12.3)	115 (14.7)
Adolescent reproductive health service attendance (*n* (%))	N/A	512 (61.8)

N/A = not assessed. Percentages are reported as weighted percentages.

Table 2. Association between individual, social and structural variables, loveLife exposure and contraceptive use

	Current contraceptive use, female		Current contraceptive use, male	
	OR (95% CI)	AOR (95% CI)	OR (95% CI)	AOR (95% CI)
Individual				
Contraceptive knowledge	0.77 (0.45 - 1.31)	-	1.63 (1.06 - 2.53)*	1.54 (0.92 - 2.60)
Ever made someone pregnant/pregnant	0.34 (0.13 - 0.91)*	0.46 (0.16 - 1.35)	0.66 (0.31 - 1.37)	-
Unwanted pregnancy	1.43 (0.50 - 4.08)	-	0.56 (0.10 - 3.02)	-
Low self-esteem	1.91 (0.48 - 7.63)	-	0.51 (0.14 - 1.83)	-
No sense of future	1.69 (0.69 - 5.57)	-	0.98 (0.41 - 2.38)	-
Partner risk reduction self-efficacy	1.12 (0.94 - 1.35)	-	1.13 (0.99 - 1.28)	-
Social				
Social network resources				
Low	1.00	-	1.00	
Medium	0.83 (0.24 - 2.80)		1.05 (0.32 - 3.44)	
High	0.66 (0.20 - 2.15)		3.48 (0.85 - 14.23)	
Peer pressure				
Low	1.00	-	1.00	
Medium	0.50 (0.18 - 1.38)		0.48 (0.15 - 1.50)	
High	1.49 (0.44 - 5.06)		0.80 (0.29 - 2.18)	
Sexual attitudes				
Low	1.00	-	1.00	
Medium	2.20 (0.89 - 5.43)		1.17 (0.30 - 4.48)	
High	0.71 (0.23 - 2.67)		1.54 (0.45 - 5.23)	
Female role pressure	0.76 (0.29 - 1.99)	-	N/A	
Female reproduction communication	0.97 (0.57 - 1.65)	-	N/A	
Talked to partner about condom use in the past 12 months	2.11 (0.69 - 6.43)	-	4.03 (1.52 - 10.70)**	2.83 (0.84 - 9.50)
Structural				
Poverty index	0.95 (0.79 - 1.14)	-	0.95 (0.88 - 1.03)	-
Education	1.48 (1.13 - 1.95)**	1.05 (0.76 - 1.44)	1.12 (0.89 - 1.42)	-
Student	1.00	-	1.00	
Employed	1.31 (0.39 - 4.47)		1.11 (0.48 - 2.58)	
Unemployed	0.49 (0.17 - 1.39)		0.65 (0.26 - 1.63)	
Difficulty of getting condoms	0.43 (0.22 - 0.83)*	0.54 (0.33 - 0.90)*	0.65 (0.39 - 1.10)	-
Women vulnerability index	1.65 (0.97 - 1.13)		N/A	N/A
Lack of relationship control	1.00 (0.87 - 1.14)		0.90 (0.75 - 1.08)	-
HIV/STI status				
HIV positive (v. negative)	0.28 (0.09 - 0.93)*	0.34 (0.06 - 1.84)	1.11 (0.15 - 8.00)	-
STI in past 12 months	0.36 (0.14 - 0.89)*	2.09 (0.57 - .36)	0.45 (0.11 - 1.74)	-
Risk behaviour				
Early sex (<15)	0.17 (0.04 - 0.64)**	0.09 (0.01 - 0.55)**	1.69 (0.44 - 6.49)	-
Ever forced sex	1.38 (0.39 - 4.80)	-	3.58 (0.39 - 32.65)	-
No. of lifetime sexual partners	0.91 (0.80 - 1.04)	-	1.00 (0.99 - 1.00)	-
Two or more sexual partners in the past 12 months	1.23 (0.46 - 3.40)	-	0.97 (0.45 - 2.06)	-
Inconsistent condom use	1.12 (0.21 - 5.89)	-	0.62 (0.16 - 2.50)	-
Sex with much older partner	0.83 (0.35 - 1.97)	-	0.83 (0.20 - 3.29)	-
Sexual intercourse frequency in past month				
0	1.00	-	1.00	-
1 - 5	2.73 (0.91 - 8.14)		0.96 (0.40 - 2.28)	
≥6	1.95 (0.60 - 6.34)		1.82 (0.56 - 6.08)	
Last relationship 4 months or longer	0.93 (0.27 - 3.24)	-	0.86 (0.23 - 3.19)	-
Concurrent sexual partners	0.56 (0.27 - 1.18)	-	0.99 (0.68 - 1.50)	-
Programme exposure				
One year or more loveLife participation	1.45 (0.53 - 3.96)	-	3.00 (1.33 - 6.76)**	1.72 (0.74 - 4.00)
loveLife face-to-face participation				
0	1.00	-	1.00	-
1 - 2	3.08 (0.99 - 9.62)		0.71 (0.29 - 1.76)	
3 - 4	1.60 (0.38 - 6.70)		0.93 (0.27 - 3.16)	
≥5	1.53 (0.41 - 5.75)		2.97 (0.67 - 13.08)	
loveLife multimedia programme exposure				
0 - 1	1.00	-	1.00	1.00
2 - 4	2.81 (0.88 - 8.91)		2.70 (1.07 - 6.79)*	2.02 (0.62 - 6.66)
5 - 9	1.90 (0.73 - 4.98)		4.90 (1.57 - 15.31)**	3.32 (0.81 - 13.68)
Gone to loveLife clinic	1.98 (0.57 - 6.94)	-	3.59 (1.05 - 12.31)*	2.51 (0.54 - 11.61)
Adolescent reproductive health service attendance	1.01 (0.42 - 2.40)	-	N/A	N/A

***p<0.001; **p<0.01; *p<0.05.

OR = odds ratio; AOR = adjusted odds ratio; CI = confidence interval; N/A = not assessed.

Another positive finding was that the youth in the current study reported easy access to condoms. Even more interesting was that for male participants there was a strong relationship between contraception use and having talked to their partners about condom use ($p<0.01$). While previous studies have had the worrying finding that access to condoms had little bearing on their use, our study indicates that condoms are not only easily accessed but actually made use of.[7]

In contrast to the findings of previous studies that males pressure their partners not to use contraceptives, we found that males with early sexual debut were three times more likely to be currently using contraceptives than females. These results differ from other national and international studies.[2,8,9] Even more interesting was that young women participants had delayed their sexual debut, with only 6.9% reporting having had sexual intercourse before they turned 15 years of age.

It is particularly worrying that the sexual behaviour of South African youth appears to have become more risky over the years. More action, including vigorous programmes and interventions giving comprehensive information about reproductive health and contraceptive methods and promoting the use of these methods, particularly among young women, is urgently required. Interestingly, the government is now revitalising the school health programme, which might address issues of concern such as contraception use.

Limitations of the study

This study was only conducted in the Eastern Cape, Gauteng, KwaZulu-Natal and Mpumalanga. The results are therefore not necessarily generalisable to other parts of South Africa. Furthermore, only participants who were home at the times when the selected households were approached were included, which means that those away from home at the time were systematically excluded.

Conclusion

It is particularly worrying that the sexual behaviour of South African youth appears to have become more risky over the years. Most factors that served as predictors of contraceptive use in earlier studies, such as previous pregnancy, are no longer significant, and even being HIV positive or having concurrent sexual partners does not increase contraceptive use. This finding indicates that not only closer attention to policy but more action, vigorous programmes, more national adolescent-friendly clinic initiatives, and interventions giving comprehensive information about reproductive health and contraceptive methods and promoting the use of these methods, particularly among young women, are urgently required.

Conflict of interest. The authors have no conflict of interest.

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