B et al. BMC Public Health 2011, 11(S 6):S12
://
/1471-2458/11/S6/S12

Pu

C HIV S I 2003-2009

Ja B a [1,2*], S Ra a a [1], S M [3,4], Pa a B a ac a [3,4], A M L b [3], BM Ra [3,4], R Wa [3,4], M c A a [1,2]

Abstract

Background: A c ac a a a c a b HIV c c a a a b b a a a W a c a a a HIV Ba a c I a, b 2003 a 2009.

Methods: G a a c c 2003 a 2009, a a a 6,600 a a a 10 a a 20 ba b c Ba a Q ab HIV a a c W c a a a a

Results: A a HIV c a ca 76.9% 2003 87.8% 2009, a c a a c a ca (37.4% 65.4%) a H 2009, 23% c a a a a 8% 2003 (a a (AOR) 3.3; 95%CI 2.6-4.1, <0.001). T a a ca c a b b b c HIV (76.3%-86.4%, AOR 1.8; 95%CI 1.4-2.4, <0.001). A c a b a a " a ab " (=0.05), c a (21.9% 32.4%, <0.01). T a a c a " a ab AIDS a c ab a ", a 2009 c c (15.6% 27.4%, AOR 1.9, 95%CI 1.4-2.8, =0.001). I 2003, 31.4% a a "acc c c ", c a 45.2% 2009 (AOR 1.7; 95%CI 1.3-2.3, <0.001). E ca a ba b I 2003, 19.3% a 2009 30.2% (AOR 1.8, 95%CI 1.4-2.3, <0.001) a ca ac a c

Conclusions: D c a HIV- a a c a a c c a c a a a a b ac a c a Y a a a a b a c a c ac a a ( )-7 a c ac (NFHS-3 c ac

* C c : b a @ a a.ca
[1]CHARME-I a P c, Ba a , I a KHPT c, IT Pa 5 , #1-4 Ra a a a I a A a, B KSSIDC A O c, Ra a a a, Ba a 560 044, I a
F a a a ab a a c

prevalence rate 64%, up from 58% in NFHS-2) [1], a feature that generally is associated with sexual emancipation [2]. Despite these changes, this (mostly Hindu, partly Moslem) society is still conservative and traditional in northern districts of Karnataka. The age at marriage is still quite low for women with 42% of women aged 20-24 in 2005/6 married before the age of 18 [1]; and 42% of ever-married women aged 15-49 years in 2007/8 were illiterate [3]. Regressive attitudes to women prevail: two-thirds of women and men in Karnataka in 2005 thought that it was justifiable for a man to beat his wife in some circumstances [1]. Sex education and contraception information for schoolchildren was acceptable to less than half of women interviewed nationally in the NFHS-3, although almost everyone agreed that children should be taught “moral values” in school [4].

Against this conservative socio-cultural-sexual back-

and the desired level of precision in estimating the prevalence of HIV and sexually transmitted infections in the general population at the district level.

In each study period, a complete household census was first undertaken in all 30 sites to provide a basis for random selection of respondents aged 15-49, for face-to-face interviews. The actual respondents were not the

decline was significant in all groups, rural people persisted in this belief more than urban people, as did uneducated respondents and older women. More than half the respondents in all groups agreed that those who had sex outside marriage deserved to get AIDS, a figure that did not change overall from 2003 (61.6% vs. 60.7%).

statement that “it is wrong to talk about sex”. Rather than dismissing this notion an increasing number of people agreed with this statement in 2009 compared to 2003 (24.2% vs. 29.2%, AOR 1.4; 95% CI 1.1-1.9, p=0.02). Although there was little change among men, women were much more likely to agree with the statement in 2009 than they had been in 2003 (21.9% vs. 32.4%, AOR 1.9; 95% CI 1.4-2.5, p<0.001), and this was true in both urban and rural areas. Rural women and women with low education levels were the ones most likely to agree with the statement; in 2009, 37.9% of women with less than 5 years of education agreed that it was wrong to talk about sex, compared with 22.7% in 2003, a significant increase (AOR 2.1; 95% CI 1.5-3.1, p<0.001). Young people had just as regressive views in this regard as older people.

We also asked participants if they thought it was wrong to talk about AIDS in a respectable family. Again, there was a significant increase in the proportion of people agreeing with this statement between the two rounds (21.4% vs. 25.2%, AOR 1.3; 95% CI 1.0-1.7, p=0.03). The most significant increase was seen in urban women, young people and more educated women; there was a significant increase in those agreeing with the statement among both males and females under the age of 25. In fact, young men and women became more conservative over time than older people with one quarter of respondents under the age of 25 agreeing in 2009 that it is wrong to talk about AIDS in a respectable family. The most educated respondents were more liberal than the least educated but were also the ones to have significantly changed their views regressively over time, especially the most educated women (12.2% vs. 23.8%, AOR 2.3; 95% CI 1.5-3.4, p<0.001). Young men too (aged 15-24), exhibited regressive tendencies over time with respect to openness about HIV discussions (18.4% vs. 28.2%, AOR 1.8; 95% CI 1.1-3.0, p=0.02). Reflecting a greater negativity

among the well educated and young people, suggesting that sexually conservative mores had increased in this community.

Fear and stigma, however, appeared to have reduced significantly between 2003 and 2009. Fewer people in 2009 were superstitious about the role of God in punishing people with HIV, and fewer felt that HIV-infected people should be ostracised or stigmatized, showing that the community feels less fearful of the new epidemic than it may have done initially, and pointing to the success of the intervention programme. However, as in other studies [10,12,13,16,22-27] we observed that people increasingly blamed victims for the HIV epidemic (for example sex workers). Women and the more educated women were the most likely to feel this way, and young people appeared to be no more enlightened than older people. It is not clear, however, whether this "blaming" is just associated with increased awareness of vulnerable groups in their communities rather than to any real finger pointing, though the reducing levels of stigma might point to the former.

Studies have shown that when faced with a social stressor such as an HIV epidemic, many communities react conservatively and develop what has been described as moral and sexual panic, whipped up by the media, politicians and religious leaders [13-16,19,20]. In India as in other countries, there have been demonstrations instigated by politicians reacting to events such as films about lesbianism or that involve kissing, or practices (such as homosexuality, the sex trade, dressing inappropriately) that are deemed as culturally inappropriate, or threats to Indian mores and identity [20,34]. Often as a reaction to HIV authorities have developed education campaigns that promote unrealistic prevention methods, such as abstinence [16,20]. These are common reactions in India too, where the majority of people support "moral" education in schools (generally meaning abstinence promotion), but not "sex" education [4]. Evaluations of such programmes in many countries, however, have demonstrated that abstinence-only programmes have not been effective [35,36]; in addition, sex education that includes discussions of HIV and condoms does increase promiscuity among those who are sexually naive but does have a positive effect on safe sex among those who are already sexually active [36-39]. Similarly, although the common prevailing wisdom in many societies is that condom availability promotes promiscuity [40], there is no evidence for this [37,41]. In a study by Das and colleagues, the authors assert that HIV has contributed to the inertia of sexual conservatism, because of the presumed negative effects of sexual liberalism [28]. Indeed in our study looking at attitudes over time, we found that there appeared to be increasingly less openness around discussing sex, AIDS and condoms; access to sex education and condoms were both increasingly thought to promote promiscuity. However, this conservative reaction might be the consequence of seeing widely promoted and sexually explicit condom packaging. In the study by Das et al., building on the work of others such as Kamwendo [42], the authors contend that HIV/AIDS as a social episode in a community influences some groups to become more sexually conservative than others. For example, more educated people are able to understand the negative meanings of sexual liberalism and react accordingly;

Additional file 6: Attitudes around sexuality, and around openness to discussing sexuality and HIV, by sex and location of residence, 2003 and 2009

Additional file 7: Attitudes around sexuality, and around openness to discussing sexuality and HIV, by age and education, 2003 and 2009

Acknowledgements

T a c a b B & M a Ga F a T a c a c c a c B & M a Ga F a T a c a b b a a BMC P b c H a V 11 S 6, 2011: L a ca A a a T c ab a URL.

Author details

[1]CHARME-I a P c , Ba a , I a KHPT c , IT Pa 5 , #1-4 Ra a a a I a A a, B KSSIDC A O c , Ra a a a , Ba a 560 044, I a. [2]C a a Q b c, U a C c c CHA Q b c, H a Sa -Sac , 1050 c S -F , Q b c G1S 4L8, Ca a a. [3]Ka a a a H a P T , Ba a , I a, IT Pa 5 , #1-4 Ra a a a I a A a, B KSSIDC A O c , Ra a a a, Ba a 560 044, I a. [4]C G ba P b c H a , Fac M c , U Ma ba, 771 Mc D A , M ca R ab a B , R R070, W , Ma ba R3E 0T6, Ca a a.

Authors' contributions

JB c c a a a a c ; SR c c a a a a a c a c ; MA, SM, PB, RW a BMR a a a a a c c bac a c .

Competing interests

T a c a a a c .

P : 29 D 2011

References

1. I a a I P a Sc c (IIPS), Mac I a a: **N F H S (NFHS-3), J , 2005-6:** ***Karnataka.*** M ba ; IIPS; 2008.
2. Sc J: **C : A** S c 1988, **32(4)**:815-845.
3. I a a I P a Sc c (IIPS): **D (DLHS-3), 2007-8: J** ***Karnataka.*** M ba ; IIPS; 2010.
4. I a a I P a Sc c (IIPS), Mac I a a: **N F H S (NFHS-3), 2005-6:** ***India.*** M ba ; IIPS; 2007**I.**
5. Na a I H a & Fa W a (NIHFW), Na a AIDS C O a a (NACO): **A HIV S S C R 2006.** N D , I a; 2007.
6. B a c a JF, Ha S, Ra BM, B a ac a P, Wa R, O'N J, M S: **V J : HIV** S T 2007, **83(S 1)**:30-36.

35. K b D: **E A 2007: R P R T S T D**. Wa DC: T Na a Ca a P T a U a P a c; 2007.
36. S a M: **T** *H a Ed c R* 2002, **17(4)**:471-481.
37. Da DA: **T** . *Fa P q P* 1986, **18(4)**:162-170.