ELSEVIER
www.rhm-elsevier.com

Reproductive Health Matters 2003;11(21):120–129
0968-8080/03 $ – see front matter
PII: S0968-8080(03)02167-0

REPRODUCTIVE HEALTH matters
www.rhmjournal.org.uk

Sex, Studies or Strife? What to Integrate in Adolescent Health Services

Gracy Andrew,[a] Vikram Patel,[a,b] Jayashree Ramakrishna[c]

[a] Clinical Psychologist, Sangath Society for Child Development and Family Guidance Goa, India
[b] Senior Lecturer, London School of Hygiene and Tropical Medicine, UK, and Chairman, Sangath Society. E-mail: vikpat@goatelecom.com
[c] Additional Professor, National Institute for Mental Health and Neurosciences, Bangalore, India

Abstract: *If health services for adolescents are to be successfully integrated into the existing health care system, they will need to reach out to meet the needs that adolescents themselves perceive as salient. This paper describes a study aiming to elicit the needs of adolescents in higher secondary schools in Goa, India, in 1999–2000. The objective was to generate information which could guide the development of adolescent-friendly health services by integrating the health needs identified by adolescents themselves. The study began with free-listing, followed by focus group discussions and in-depth interviews to elicit areas of concern. Then, a survey of 811 students with a self-report questionnaire was carried out. The findings demonstrate that there is clearly an unmet need for information about sexual and reproductive health, but also a large, unmet need for psychosocial support for health issues ranging from violence in schools to poor relationships with parents, stress-related health complaints and educational difficulties, which are often perceived by adolescents to be of primary importance. Integrating these issues into programmes is likely to be an essential element in developing health services and programmes which can reach out to the majority of adolescents in school settings in India.* © 2003 Reproductive Health Matters. All rights reserved.

Keywords: adolescents and young people, sexual and reproductive health, mental health, violence, education, India

WITH the advent of HIV/AIDS and a recognition that sexual activity for many people begins in adolescence, there has been a growing interest in adolescent sexual and reproductive health, and a recognition that these concerns are not being adequately addressed in the existing health system. In India, adolescents aged 10–19 years constitute 21.4% of the total population. However, until recently this age group was "usually subsumed under the categories of either youth or children" and data about them were rarely disaggregated.[1] Whilst the needs of children and pregnant women have been acknowledged in national programmes, neither services nor research have focused on adolescents or their unique health and information needs.[2]

In recent years there has been a growing awareness of adolescent needs in India, particularly in the voluntary sector, and an increase in research on adolescent issues. This trend is reflected in a recent review of the literature which identified 23 studies in India between 1990 and 2000 that focused on adolescent reproductive and sexual health,[3] virtually all on knowledge, attitudes and behaviour. Eight used a combination of qualitative and survey methods, three used qualitative methods only and 12 used questionnaires only. Most of them revealed a lack of in-depth awareness among adolescents of issues related to sexuality, sexual health-promoting behaviour and risky sexual behaviour. One study reported findings on substance abuse. None of the studies sought to link reproductive and

sexual health issues with other issues of special concern to adolescents, such as the role of education, friends, parents and family, and psychosocial needs.

The first and second authors of this study work with the Sangath Society in Goa, India, a non-governmental organisation (NGO) providing multi-disciplinary clinical services for children and adolescents. Sangath's programmes extend beyond the clinic and include partnerships with schools, other NGOs and community-based research. We decided with a colleague working in mental health and health education to conduct research in Goa that would examine adolescent health from a broad developmental perspective. In addition to sexual and reproductive health, we wanted the research to explore the profound changes taking place among young people as they develop a self-identity and personality, in an environment in which educational attainment is stressed and in the context of considerable culture change.

Goa is one of the smallest states in India, with a population of just over 1.4 million people.[4] Although ruled by the Portuguese for over 400 years, the main languages of the state are Konkani and English, and about 30% of the population are Catholic. Goa boasts some of the best human development indicators in India. The median age at first marriage for girls in Goa is 23 (as compared to 16.4 for all-India) and the total fertility rate 1.77 (where all-India is 2.85).[5] Thus, in contrast to some Indian states, the vast majority of adolescents in Goa are not married.

On the basis of clinical and field experience at Sangath, we decided to explore the concerns of adolescents, including reproductive and sexual health, but also encompassing psychosocial issues, experience of violence, relationships with parents and education.

Methodology

The research was carried out in two stages, using a research design that combined qualitative and quantitative methods. It was conducted amongst students of the XI Standard in Higher Secondary Schools in South Goa in 1999–2000. In the first stage, qualitative methods were used with adolescents to elicit data on their needs, and four schools participated. For the second stage, a cross-sectional survey of adolescent needs, eight schools participated, including the four who had participated in the first stage. Two of the schools were in Margao, a commercial city; the other six were located in the rural and suburban parts of South Goa. In order to be as representative as possible, we chose co-educational schools from both the private and public sectors, and schools which included a wide variety of educational courses.

In the first stage, three types of qualitative research methods were used: free-listing, focus group discussions (FGDs) and key informant interviews. A total of 60 girls and 60 boys were purposively chosen, i.e. as volunteers, and were asked to make lists of general problems, health problems and the questions that arise with regard to sex that adolescents face. Analysis of the free-lists revealed some common themes: studies (e.g. educational difficulties), stress (e.g. conflict with parents) and sexuality and reproductive health issues. These themes were explored further in FGDs (two in each school, one with girls and one with boys). Each FGD had six to eight students from the XI Standard. Next, five boys and four girls from the XII class who were recognised by their teachers as peer leaders were invited to be key informants. These interviews were mainly conducted to clarify some of the issues arising from the FGDs, for example premarital heterosexual relationships, homosexual relationships, types of limits set by parents, and sources and solutions for stress-related problems. We also asked for their input on the content and format of the cross-sectional survey, which formed the second phase of the study.

For the cross-sectional survey, we developed a draft questionnaire based on the information generated in the first stage, which we discussed with groups of adolescents and teachers to check validity and wording. Different versions were prepared for boys and girls, to take into account gender differences regarding sexual relationships and sex-specific issues such as menstrual health. Konkani translations of the draft questionnaire were prepared using translation–back-translation and consensus methods.[6,7] The draft questionnaire was piloted with 30 students and revisions made to the content and style. The questionnaires were then presented to principals of all participating schools, with a request to

discuss with and obtain consent from their respective Parent–Teacher Associations. The questionnaire was modified once more to incorporate suggestions and comments from parents and principals. It covered:

- demographic information (age, sex, parental education);
- education (scores in tenth class board exams, difficulties faced with regard to school, career choices, difficulties in studies);
- health problems, common symptoms (e.g. headaches), frequency and kind of health-seeking behaviour;
- concerns regarding physical appearance (e.g. body weight, skin colour);
- questions about mental health based on the General Health Questionnaire, a 12-item questionnaire that has been used in Goa before and validated in a Konkani version,[8] covering symptoms and experiences related to concentration, sleep, decision-making ability, mood, thoughts that life was not worth living, and substance use (tobacco, alcohol, cannabis, opiates);
- parental relationships (spending time with parents, arguments, restrictions);
- sexual knowledge (masturbation, pregnancy, contraception, homosexuality and menstruation) and sources of information on sex;
- sexual behaviour (kissing, fondling, penetrative oral, anal and vaginal sex, homosexual relationships, age at first penetrative sexual experience, age of partner and reasons for first sex);
- experiences of violence and abuse (physical, verbal and sexual, perpetrator).

A variety of question formats were used including single choice ratings (yes/no or true/false/not sure), multiple choice questions and some open-ended questions. For example, in the mental health section, each item is scored 0 (no symptom) or 1 (symptom experienced), and the total score (0–12) serves as an estimate of the mental health status of the respondent. The higher the score, the poorer the mental health status. In the validation study in Goa, scores over 5 suggested significant emotional distress.[8]

The survey was conducted during school hours in the eight schools. Students were seated, as if in an examination hall, to ensure confidentiality of responses. Members of the study team explained the purpose of the survey, and students were given the opportunity to leave the room if they did not want to participate and to ask the study team questions. All questionnaires were anonymous. Experienced professionals (psychologists and social workers) were present throughout the 90 minutes allotted for completing the questionnaire. If any student was unclear about a specific question, they could clarify it with one of the professionals present. The name and contact telephone numbers of professional counsellors working with the Sangath Society were provided on the questionnaire.

Analysis and findings

The free-lists were analysed using a spreadsheet; categorisation of responses was carried out by the first two authors and two research associates independently. The final category definitions were decided by consensus. FGD and key informant interview data were analysed manually using the categories identified following the free-lists. The transcripts were analysed by the first author, who allocated the narrative data of transcript material from each key informant/FGD to various categories. These were checked by the other two authors and discrepancies dealt with. Issues which recurred between subjects were of particular interest because of their potential for generalisability. A selection of verbatim statements arising from the qualitative data and proportions of respondents for particular categories are presented. Survey data were analysed using SPSS for Windows and are reported here where relevant.

Of the 812 students present on the day of the survey, 811 agreed to participate. The average age was 16 (range 14–21). Just over half (53%) were boys. About half were Christian (49%) and most of the remainder (46%) Hindu. Students from the two urban schools comprised 63% of the sample. More than half the fathers and mothers had completed high school. Thus, the majority belonged to literate families.

The results are organised around the three main themes that arose: sexuality (sources of information, sexual practice, knowledge and attitudes); studies (schooling and careers); and strife (relationship with parents, health complaints, abuse, sexual harassment and coercion). Findings

arising from the quantitative and qualitative studies are integrated for each of these themes. The full study findings, which include rural–urban and sex-disaggregated data have been published as a report.[9] Detailed analyses pertaining to sexual violence and its correlates have been published elsewhere.[10]

Sexuality

In the free-listing, 85% of the boys and 73% of the girls had at least one question about the meaning and practice of sex, for example:

''What is sex?''

''How is sex done?''

48% of the boys and 70% of the girls had questions regarding changes which occur during adolescence:

''Why does one feel this way only after 15?''

''Why do thoughts of sex come to our mind at this age?''

''Why do young students get excited when they look at naked pictures in books?''

Almost half of boys and girls listed questions regarding values, the rightness of certain behaviours and whether it was appropriate at their age:

''Is kissing a bad thing to do at the age of 16? Is it healthy at this age?''

''Is sex a moral or immoral thing? What is the value of doing sex between boys and girls?''

Sex-related differences were apparent in some of the questions asked in the free-lists. Boys were more curious about sexual pleasure (18 boys vs. 2 girls):

''Is there any pleasure in sex?''

''What type of happiness does a boy get by having relations with a girl?''

''Is having sex really enjoyable?''

On the other hand, girls were more curious to learn about childbirth and pregnancy (27 girls vs. 5 boys):

''How is a baby born? How does it come out?''

Concerns regarding masturbation were frequent amongst boys:

''Is it true that masturbation is bad for one's health''

''Does masturbation have an effect on our minds and bodies at this stage?''

The lack of knowledge was reflected in the survey as well, where a large proportion of responses to statements on level of knowledge were ''unsure''. For example, although more than 95% of adolescents had heard about AIDS and nearly 90% could say that HIV caused AIDS, more than half the girls and almost a third of boys were unable to say whether using a condom could help to prevent HIV infection. A comparable lack of knowledge was shown on matters relating to pregnancy and puberty. For example, half the girls were unsure if condoms could prevent pregnancy or whether oral sex could lead to pregnancy. About 80% of adolescents were unsure whether masturbation could cause health problems.

In the focus group discussions, both boys and girls described older friends as the preferred source of information on sexual matters because they were perceived as being more knowledgeable (than parents or teachers). Boys said they also obtained information on sex from movies, magazines and blue films, while girls were more likely to obtain information on sex from television. Some of the questions during the free-listing centred around the authenticity of such information.

These findings were confirmed in the survey. The most common person from whom information regarding sex was obtained was a friend (72% of boys and 63% of girls). Mothers were the next most important person for girls (36%) while doctors were cited by 26% of boys. Fathers were a source for only 6% of boys and 2% of girls. Pornographic films were a source of information for 51% of boys and 14% of girls. Non-pornographic books were also cited as important sources of information on sex (41% of boys and 45% of girls).

Responses on attitudes towards sexual relationships showed a marked difference between boys and girls. For example, nearly half of boys agreed with the survey statement that ''Sex before marriage is all right if you take care that the girl does not get pregnant''. In contrast, only 21% of girls agreed that ''Sex before marriage is all right if you take care not to get pregnant''. 30% of boys and 40% of girls agreed that boys enjoyed sex more than girls. 11% of boys agreed that sexual attraction between boys was acceptable, and 17% of girls agreed that sexual attraction

between girls was acceptable. Key informants and FGD findings suggested that sexual relationships in the XIth grade were less common than among senior college students, in part because of the fear of AIDS. However, some older boys (from the senior college) were known to have relations with sex workers.

In the cross-sectional survey, although one-third of boys and one-third of girls said they had a romantic heterosexual relationship, only 6% overall admitted they had ever engaged in vaginal intercourse (8% of boys and 3% of girls). Oral sex was reported by 5% of boys and 1.3% of girls, while anal sex was reported by 3% of boys and 1.6% of girls. Of the 57 adolescents who had experienced any form of penetrative sexual intercourse, 55% reported this was coercive while 39% reported that they had sex because they were in love with their partners. Adolescents who were sexually active were significantly more likely to have experienced a sexually abusive experience (see below; $p < 0.001$). The majority of sexually active adolescents had had only one sexual partner (30 of the 52 who answered this question). Two adolescent boys reported that their sexual relationship had led to a pregnancy. 11% of boys reported a sexual attraction to another boy; 6% had had a sexual relationship with another boy. The corresponding figures for girls were 5.5% for sexual attraction to another girl and 2% for a sexual relationship.

Studies

The majority of the students were satisfied with the choices of stream they had made in higher secondary education. However, educational difficulties were cited as problems by 55% of boys and 63% of girls in the free-listing so these were explored further in the FGD and key informant interviews. The most commonly cited concern was the pressure on them to do well in their exams. Other concerns were the lack of interest that some felt for their studies, having been forced to choose educational streams by their parents, or a poor school environment.

''Nowadays it is very difficult for students to reach their goals because you have to get a very high percentage.'' (Free list, girl)

''Education has become such a headache—it is a problem for the youth. Our elders want us to be something that is beyond each student's limitations.'' (FGD, boy)

Career concerns were also common, in particular the lack of adequate information regarding career choices, lack of choices in Goa, financial difficulties in pursuing some careers and conflict with parents regarding career choices.

''The students in the 11th class have just finished school and they don't know what to do with their lives… Some kids may have parents who are doctors and engineers. The parents want them to follow in their footsteps, but they feel they are not smart enough… there is a lot of confusion… Some have the capability but they don't study and because of this later on there is stress, some are confused and because of the confusion they lose more time. Some want to study but they cannot. They are weak.'' (Key informant interview, boy)

These concerns were reflected in the survey findings where more than half the boys and girls reported difficulties in coping with their studies. The commonest reasons cited were difficulty in concentrating (75% of boys and 64% of girls) and having too much pressure put on them (44% of boys and 47% of girls). 71% of boys and 81% of girls expressed the need for career guidance that took their own interests into account rather than pressure to choose careers they were not interested in; most (60%) said their parents were their preferred source of support for career guidance.

Relationships with parents

In the free-listing, 55% of boys and 67% of girls described difficulties in their relationships with their parents as the most common concern under general problems faced by adolescents. Arguments or fights with parents appeared uncommon but these students, the girls especially, spoke of wanting their parents to be understanding:

''… not be too strict for we might end up hating them… to have time for us… They should explain to us as we cannot reason out like adults.'' (FGD, girl)

''… to be friends, counsellors and advisors.'' (FGD, girl)

''My parents think I am still a child and not capable of doing things alone.'' (FGD, girl)

Annoyance with being treated differently from their brothers was commonly voiced by the girls (38% of girls reported this in the free-listing, as compared to 7% of boys who complained of being treated less favourably than their sisters). Girls appeared more likely to be restricted in talking to or going out with the opposite sex, and in the clothes they wore.

''Parents should not be partial in their treatment of boys and girls—they should treat us equally.'' (FGD, girl)

''If I go to a friend's place and I am late by just five minutes, my parents will phone to ask my friend where I am. Then they start questioning me like detectives: 'Where were you? Why are you late?' I have to explain everything…'' (FGD, girl)

Indeed, many girls said: "They should have faith in us." Culture change and the resulting conflict with parents was cited by some adolescents as a cause of conflict with parents, as illustrated by this key informant account:

''Parents want us to follow the traditions and culture that is acceptable. Traditional beliefs are not acceptable to most boys and girls… what is acceptable is modern times… fashion and western culture in terms of clothing and fast food… because western culture is more developed than ours… They have more money and power.'' (Key informant, boy)

In the survey, more than half the boys and girls felt they were not able to talk freely to their fathers; on the other hand, 75% of both boys and girls were able to talk freely to their mothers. The commonest restrictions placed on adolescents by their parents were not coming home late (58% of both boys and girls), not going out with the opposite sex (38% boys and 63% girls) and not watching TV (51% boys and 40% girls). The qualitative data suggest that one reason for these gender differences was parental concern about girls going out with boys because of the perceived greater vulnerability (than boys) to sexual advances. However, 9% of boys and 13% of girls felt they had been neglected (not given adequate care) by their parents. Just over 10% of boys and girls, with no significant gender differences, had been physically hurt (e.g. hit, slapped, kicked) by parents in the previous year, while 21% of boys and 32% of girls said they had been verbally abused.

Health complaints and care seeking

Table 1 shows the common health complaints mentioned by boys and girls in the free-listing and the survey. Most were physical complaints, including sexual health complaints, but a large minority were regarding mental health, stress or physical appearance. Overall, apart from mental health and stress complaints, more girls registered complaints than boys.

In the survey, most adolescents said they were in good physical health; of the 532 who answered questions about all eight health complaints listed, 49% reported that none had occurred more than once a week in the past month. The commonest, i.e. those which had occurred more than once a week in the previous month, were tiredness, colds and sore throats, and headaches. Some 11% of boys complained of a discharge from their genitals, while 20% of girls complained of a vaginal discharge and 58% of girls complained of menstrual pain. These complaints of vaginal discharge do not, however, signify the presence of sexually transmitted infections; Patel and Ooman argue that the complaint may be a culturally determined idiom for help-seeking for severe psychosocial adversity.[11]

Barring colds and sore throats, for which more than one in three adolescents in the survey took some form of medication or consulted a doctor, overall more than 80% of those with complaints did not consult anyone and there was no significant difference between boys and girls.

Almost 30% of boys and 40% of girls had scores of 5 or more on the General Health Questionnaire, indicating a broad range of emotional distress. (The questionnaire is a screening measure, however, and does not generate diagnoses.) More than one in four adolescents responded that they had felt life was not worth living in the previous month. This does not signify a suicidal thought (questions regarding specific suicidal thoughts were removed from the final questionnaire after concerns expressed by a school principal) but denotes feelings of hopelessness about the future. The causes of such feelings were attributed mainly to the stress of education and

Table 1. Frequent health complaints of boys and girls in free-listing, four schools, and survey respondents, eight schools, Goa

Type of complaint	Complaints by boys	Complaints by girls
Free-listing	Total complaints (n = 124)	Total complaints (n = 185)
Physical health complaints	47%	43%
Mental health complaints and stress	27%	20%
Appearance	13%	23%
Sexual health complaints	13%	14%
Survey respondents	Total respondents (n = 430)	Total respondents (n = 381)
Physical health complaints		
–Tiredness	20%	26%
–Cold and sore throat	14%	23%
–Headaches	9%	16%
Sexual health complaints		
–Menstrual pain	–	58%
–Discharge	11%	20%
Mental health complaints	30%	40%
Appearance		
–Acne	50%	44%
–Excess body hair	16%	62%
–Unpleasant body odour	19%	23%
–Fear of hair loss	16%	63%
–Being overweight	9%	20%
–Being underweight	29%	16%
–Being too tall	11%	9%
–Being too short	18%	31%
–Skin too dark	28%	35%

relationships with parents. Substance abuse was very uncommon among boys and practically non-existent among girls. By far the commonest substances used were alcohol and tobacco. 11% of boys had ever tried either; regular use of either was reported by less than 3%.

Concerns about appearance were quite common, including concerns about being under- or overweight. In the free-listing and FGDs, girls frequently described worries about acne, losing hair and too-dark skin colour as well, while boys worried most about acne, being underweight and too-dark skin colour. The most common concern for girls, however, was fear of loss of hair.

Abuse, sexual harassment and coercion

In the survey, about a third of the adolescents said they had experienced verbal abuse by other students, while 13% of boys and 5% of girls said they had been physically abused by other students in the previous 12 months.

Non-consensual sexual experiences, i.e. sexual abuse and harassment, were common for both boys and girls. A third of adolescents had experienced at least one of five different types of sexual harassment in the previous year, most commonly from another student. The most common forms of harassment were someone talking about sex in a manner which made the adolescent uncomfortable (23% of boys and 13% of girls) or someone forcefully brushing their sexual organs against the adolescent (11% of boys and 17% of girls). 13% of boys and 9% of girls had been touched without their permission and 10% of boys and 3% of girls had been forced by someone to touch them. Approximately 6% of both boys and girls had experienced coercive sexual intercourse. (Questions on frequency or action taken were not asked.)

Of special concern is that those who were victims of sexual violence were more likely to have a poor relationship with parents, poor academic performance and worse mental health scores.[9]

Discussion

The objectives of this project were to understand the needs and concerns of adolescent secondary school students as perceived by the adolescents themselves. The findings are not generalisable to out-of-school adolescents in Goa, nor to adolescents in other states in India where the age at marriage is earlier and school completion rates are lower.*

*We found no studies of out-of-school populations in Goa. Some studies of married adolescents, e.g. Barua and Kurz in the neighbouring state of Maharashtra, found that health-seeking behaviour of married adolescents was much higher than we found in unmarried adolescents, possibly related to fears of illness interfering with domestic work and fertility.[12]

However, we believe our findings may be useful for planning services for school-based adolescents not only in Goa but in other states of India where indicators such as those on literacy, total fertility rate and age at marriage[5] are improving as well.

Our findings provide an overall reassuring picture of positive experiences of adolescent development. The majority of adolescents were healthy except for minor complaints and not engaging in risky behaviours such as substance abuse or unprotected sexual intercourse. However, there are concerns which require attention. Many of them reported strained relationships with parents over restrictions placed on them, which were often gender-specific. Furthermore, rates of emotional distress, as estimated using a screening questionnaire, were high, with more than a third of students in the survey reporting a significant number of symptoms associated with stress. Studies were often also a source of stress because of high parental expectations. High rates of verbal and physical violence and sexual abuse were also reported, much of it happening within relationships with older boys and girls. Many adolescents also expressed concern about their appearance, and although this is not serious from a clinical perspective, it is clearly important to adolescents themselves. Products aimed at 'lightening' skin colour, reducing hair loss and increasing muscle strength are being heavily promoted in India, and seem to be causing unwarranted anxiety in young people.

Sexuality was a major focus of interest and concern among adolescents, and there was a great lack of knowledge about sexuality and sexual health, especially among girls, and recourse to inappropriate sources of information, especially among boys. These findings are consonant with virtually all studies on knowledge of reproductive and sexual health amongst adolescents in India.[3,13] However, sex and reproduction were by no means the only, or necessarily the principal, concern of adolescents. Indeed, parental communication and education were important priorities from their perspective. Adolescent concerns covered a broad range of issues which are intimately connected with their developmental and psychosocial needs: education, relationships with parents and peers. As Jejeebhoy has said, in many adolescent health programmes in schools in India, family life and sex education appear to be only remotely relevant to the concerns of young people, focusing as they do on biological and scientific information over broader issues of sexuality, and very few address the range of needs of adolescents, married or unmarried.[14]

We believe that for adolescent health services to be able to meet adolescent health needs, reproductive and sexual health will need to be integrated with the broader concerns of adolescents themselves as well, including:

- appropriate and relevant sex education;
- strategies for the avoidance and prevention of abuse and violence;
- stress management;
- guidance on how to study and career guidance;
- advice regarding common health problems and concerns about appearance;
- family counselling services for those living in dysfunctional family settings; and
- life skills training for dealing with peer relationships and difficulties encountered.

Rather than integrating adolescent services with adult or child health services, the focus on integration should be to ensure that all adolescent concerns can be dealt with under the same roof. Furthermore, services should be delivered in accessible settings where adolescents will feel comfortable, i.e. schools for school-going adolescents rather than clinics. These services must be designed to provide information, education and counselling in an atmosphere of confidentiality and trust. It is important to provide gender-sensitive information, preferably involving youth in designing and imparting information. It is essential to recognise that the majority of adolescents will continue to live with their own parents, and as the age at marriage rises in most countries, this will only increase. It is thus important to incorporate partnerships with parents to ensure that adolescent needs and concerns can be adequately addressed in a culturally sensitive manner. Creating a space for parents, teachers and adolescents to interact, catering for the needs of all of them, would be ideal.

Some adolescents will need individual help or guidance, e.g. with serious psychological problems, substance abuse or suicide management. Mental health problems have become one of the

most visible, and serious, health problems confronting adolescents in developing countries.[15] Although feelings of hopelessness in the month prior to our study were expressed, they are likely to be transient in most adolescents. However, they may lead to more systematic suicidal thinking in vulnerable adolescents and those without adequate social support. Problems like these may need to be dealt with by skilled medical or mental health professionals. An integrated adolescent service should incorporate appropriate referral and follow-up for those who need it.

Models of comprehensive, school-based adolescent health programmes in developed and developing countries, include those that function on the rationale that a broad-based, health-promoting intervention is preferable to discrete programmes aimed at specific risk behaviours, e.g. in South Africa.[16] School-linked health centres in the USA provide comprehensive medical, reproductive health, mental health and health education services for adolescents.[17,18] The World Health Organization Mental Health Programme has developed a model for life skills education in schools which helps to promote psychosocial skills in young people.[19] There is, however, little evaluation of the effectiveness of these interventions on risk behaviour outcomes.

Adolescence is a universal experience in the transition to adulthood, and a life stage with distinct physiological, sexual and psychological characteristics.[20] It is associated not only with sexual maturation but also with profound changes as part of psychosocial development. School and community influences begin to compete with the home environment as key factors in young people's lives. Broader community influences, such as the media, have an increasingly important effect on attitudes and behaviours. The settings in which adolescents live, learn, work, play and worship provide opportunities for them to strengthen both their sense of identity and their social, emotional and intellectual skills. Adolescent health programmes in developing countries need to acknowledge these diverse developmental needs and realities.

Acknowledgements

Without the active support of the parents, teachers and adolescents of the schools that participated, this project would not have been possible. We are grateful to Dr Tereze Pierre, Nimisha Kamat and Joaquim Godinho for their participation in data collection and the whole Sangath team. We are also grateful to the Ford Foundation-funded NIMHANS Small Grants Programme for Research on Sexuality and Sexual Behaviour for supporting this project.

References

1. Bezbaruah S, Janeja M. Adolescents in India: A Profile. New Delhi: UNFPA, 2000.
2. Jejeebhoy S. Adolescent sexual and reproductive behaviour: a review of evidence from India. Social Science and Medicine 1998;46:1275–90.
3. Khanna R, Gurbaxani S, Sengupta K. Sexuality and Sexual Behaviour: An Annotated Bibliography of Selected Studies (1990–2000). Baroda: Women's Health Training, Research and Advocacy Centre, 2002.
4. Government of India. Census of India 2001. New Delhi: Government of India, 2001.
5. International Institute for Population Sciences, ORC Macro. National Family Health Survey–2, 1998–99: India. Mumbai: IIPS, 2001.
6. Sartorius N, Kuyken W. Translation of health status instruments. In: Orley J, Kuyken W, editors. Quality of Life Assessment: International Perspectives. Berlin: Springer-Verlag, 1994. pp. 3–18.
7. Flaherty JA, Gaviria FM, Pathak D, et al. Developing instruments for cross-cultural psychiatric research. Journal of Nervous and Mental Disease 1988;176: 257–63.
8. Patel V, Pereira J, Mann A. Somatic and psychological models of common mental disorders in India. Psychological Medicine 1998;28:135–43.
9. Andrew G, Patel, V. Health Needs of Adolescents: A Study from Goa. Goa: Sangath Society, 2002. Available at <www.sangath.com>.
10. Patel V, Andrew G. Gender, sexual abuse and risk behaviours: a cross-sectional survey in schools in Goa. National Medical Journal of India 2001;14:263–67.
11. Patel V, Oomman N. Mental health matters too: gynaecological symptoms and depression in South Asia. Reproductive Health Matters 1999;7(14):30–38.
12. Barua A, Kurz K. Reproductive

health-seeking by married adolescent girls in Maharashtra. Reproductive Health Matters 2001;9(17):53–62.
13. Garg S, Sharma N, Sahay R. Socio-cultural aspects of menstruation in an urban slum in Delhi, India. Reproductive Health Matters 2001;9(17):16–25.
14. Jejeebhoy S. Actions that protect: promoting sexual and reproductive health and choice among young people in India. Keynote address. MacArthur Foundation Fund for Leadership Development Conference, Goa, 9–11 December 2002.
15. Eddleston M, Rezvi Sheriff MH, Hawton K. Deliberate self-harm in Sri Lanka: an overlooked tragedy in the developing world. BMJ 1998;317:133–35.
16. Flisher A, Brown A, Mukoma W. Intervening through the school system. In: Miller WR, Weisner C, editors. Changing Substance Abuse through Health and Social Systems. New York: Kluwer/Plenum Press, 2002. pp. 171–82.
17. Kaplan DW, Calonge BN, Guernsey BP, Hanrahan MB. Managed care and school-based health centres. Use of health services. Journal of Adolescent Health 1998;23:344–53.
18. Fothergill K, Ballard E. The school-linked health center: a promising model of community-based care for adolescents. Journal of Adolescent Health 1998;23:29–38.
19. World Health Organization. Life Skills Education in Schools. Geneva: Programme on Mental Health, WHO, 1997.
20. Dehne KL, Riedner G. Adolescence: a dynamic concept. Reproductive Health Matters 2001;9(17):11–15.

Résumé

Pour que les services de santé pour adolescents soient intégrés avec succès dans le système de soins de santé, ils doivent satisfaire les besoins jugés essentiels par les adolescents. Cet article décrit une étude visant à définir les besoins des adolescents dans des écoles secondaires du deuxième cycle à Goa, Inde, en 1999 – 2000. L'étude a commencé par l'établissement d'une liste de questions, puis des discussions par groupes d'intérêt et des entretiens approfondis ont cerné les domaines de préoccupation. Une enquête avec questionnaire a été menée auprès de 811 étudiants. Les conclusions montrent qu'il existe un besoin insatisfait d'information sur la santé génésique, mais également un vaste besoin de soutien psychologique pour les questions de santé comme la violence dans les écoles, les mauvais rapports avec les parents, les troubles en rapport avec le stress et les difficultés scolaires, que les adolescents jugent souvent primordiales. Intégrer ces questions dans les programmes sera probablement un élément essentiel du développement de services de santé atteignant la majorité des adolescents scolarisés en Inde.

Resumen

Si se pretende integrar los servicios de salud para adolescentes en el sistema de salud existente, dichos servicios habrán de satisfacer las necesidades percibidas como sobresalientes por los adolescentes mismos. Este artículo describe un estudio dirigido a descubrir las necesidades de los adolescentes en las secundarias superiores en Goa, India, en 1999 – 2000. El estudio comenzó con listas abiertas, seguidas por grupos focales y entrevistas en profundidad para revelar las áreas de interés. Luego, se aplicó una encuesta auto-administrada a 811 estudiantes. Los resultados demuestran la existencia de una necesidad no satisfecha de información acerca de la salud sexual y reproductiva, pero también una necesidad de apoyo psicosocial para enfrentar problemas de salud que a menudo son percibidos por los adolescentes como los más importantes, tales como la violencia en las escuelas, las malas relaciones con los padres, y malestares causados por la tensión y las dificultades escolares. Se indica que la integración de estos temas en los programas sea un elemento esencial al desarrollar servicios y programas de salud capaces de llegar a la mayoría de los adolescentes escolares en la India.