A Survey of Sexual Behaviour and Knowledge of Sexual Health of Rural Youth

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The Sexual Behaviour of Young People in Rural Australia

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Introduction

Sex and love are among the great pleasures of life and for most people there can be few things more exciting than early sexual experiences. Unfortunately, sex also entails risks to health and psychological well-being. It is important that, as our society attempts to promote the general health of young people, education and services are built on an understanding of adolescent sexuality.

However, very little research into adolescents' sexual behaviour has been done and this is particularly true in rural areas. We do know, sadly, that an epidemic of HIV infection has claimed the lives of too many young men and that even greater numbers of young women have become infertile and possibly developed cervical cancer as a result of Sexually Transmitted Diseases (STD). Further, despite a recent decline in unwanted pregnancies (Condon 1992), too many young people are being forced into poverty and hardship by having children before they have a chance to realise their options or to develop the personal strength that is needed to create and sustain a family.

The Sexual Experiences of Rural Youth

Studies in various countries indicate that people in rural areas report later ages of first intercourse and less premarital sex than those in urban areas (United Nations 1989). This may also be the case in Australia. McCabe and Collins (1981) found that urban youth were likely to have sexual experiences earlier than rural youth.

The expression of sexuality may also differ between geographic regions. Recent studies in Britain and France have found that urban men and women (mainly in London and Paris) are much more likely to report homosexual experiences than those in rural towns. Those studies also found women and men in urban areas to be twice as likely as people in rural communities to report having multiple partners in one year (ICSF 1992; Johnson et al. 1992). Although most participants were adults, it is possible that similar patterns would be found among adolescents.

Given the threat of STD (particularly HIV infection) and the promotion of condoms in recent years, it is important to know whether young people have adopted 'safe sex' in everyday life. To date, though, there has been minimal research into safe sex. Even basic questions about the use of condoms by adolescents in Australia have not been asked. In a small survey of 71 sexually active Year 9 students in New South Wales, 42% always and 36% sometimes used condoms (Weisberg et al. 1992). Among post-secondary students in mainly city universities (Turtle et al. 1992; Moore & Rosenthal 1991) between 70-80% say that they have used a condom at least once. There are few illuminating data on rural/urban differences in condom use by young people in other countries.

In this paper, we report findings from the first large, random survey of the sexual behaviour, knowledge and attitudes of school aged youth throughout Australia.
Method

Sample selection
Permission to conduct this research was gained from government education authorities in all states and territories except New South Wales, with the sample therefore representing approximately 65% of the national population in government secondary schools (Australian Bureau of Statistics 1990). Non-government schools did not participate in the 1992 study.

A two stage, stratified sample selection process was employed. First, a target number of schools was drawn at random from within state sectors, using a population proportional to size procedure which ensured that small schools were not over-represented in the state sample. The final sample included 312 classes from 72 high schools and senior secondary colleges.

Sample characteristics
Four thousand, five hundred and seventy two students in years 7 to 12 were included in the final sample. They were aged between 11 and 20 years inclusive (mean: 15.3, median: 15.3). Using Australian Bureau of Statistics criteria from the 1991 Census, we defined a rural town as having a population of less than 25,000 people and a minor urban centre as having a population between 25,000 and 100,000. Major urban centres (mainly the capital cities except Darwin) had a population in excess of 100,000.

The random selection process appears to have produced a representative sample of rural and urban youth. Thirty four point eight per cent (N=1,592) of the students lived outside the major urban centres, a figure very close to the 36.5% of the whole population who live outside the major cities (Howe, 1992). Of this group 83.5 lived in towns of less than 25,000 people.

Participation rates
Using an active consent procedure, which required signed permission from a parent/guardian and the student, we found that 24.6% of eligible students did not return the permission slip to school. Of those who did, 89.7% of parents gave approval for their child's participation and, of students given parental approval, 96.3% agreed to participate. However, of those students who initially consented, 9.2% were either absent or otherwise unavailable on the day of the survey. The true participation rate was 59.3% of the target sample. Females (65%) were more likely to participate than males (53%). The data have been weighted to compensate for state sample disproportionalities and variable response rates (Kish 1965).

Survey procedure
The study was conducted between May and September, 1992. Students were surveyed in class groups, in sessions lasting approximately 35 minutes. To protect confidentiality and to ensure standard administration procedures, anonymous questionnaires were administered by research staff, where possible the class teachers were not present and students were seated at separate desks placed 1.5 metres apart.

The questionnaires
Two versions of the 'HIV Risk and Sexual Behaviour' questionnaire were developed: one for junior secondary years (7-9) and the other for senior years (10-12) (see Dunne et al. 1992, for a detailed description). It was not possible to gain permission from authorities to ask questions about homosexual relationships or separately about oral, vaginal and anal intercourse. However, care was taken to ensure that all questions could be answered without reference to the gender of the respondent's sexual partner.

Results
Knowledge of HIV transmission
Students were asked about ways in which HIV is, or is not, transmitted. It is clear that they are well informed about the transmission of HIV infection. Students aged 11 to 13 years averaged nearly 9/11 questions correct and this increased to 10/11 correct at years 15 and above. There were no differences in scores on this knowledge test between rural and urban region, or by age, sex or ethnic background. This demonstrates a consistently high level of awareness of risk behaviours.
Knowledge of other STD

STD were described as 'diseases which could be caught from having sex'. Using common language and their own spelling, students wrote down as many names and symptoms of other STD as possible (symptoms were explained as changes to the body). The most striking finding was that very few students could name more than one or two STD and knowledge of symptoms was quite poor. Older students and females had the best knowledge.

Figure 1: Knowledge of other STD - Rural and urban differences - Males and females, N=1,672

It is interesting that rural youth appear to have better knowledge than the other two groups (see Figure 1). Two factors contributing to this trend are that youth in major urban centres (population over 100,000) were more likely to have a Non-English Speaking Background (NESB) and more likely to be male. Analysis of co-variance revealed that males and NESB youth had poorer knowledge overall. However, even after adjusting for these factors, rural females were able to name slightly more STD, although the trend for better knowledge of symptoms was not statistically significant. A full analysis of these and other data on knowledge of STD has been submitted for publication (Lucke et al. 1993).

Attitudes toward people with HIV infection

Students were asked questions about their willingness to mix with people who have HIV infection (such as other students or teachers) and about whether they think people with HIV have 'only themselves to blame'. In general, students had non discriminatory attitudes, with females being slightly more tolerant than males. There were no statistically significant differences in attitudes between rural, minor urban or major urban youth.

Sexual behaviour

Sexual experience was assessed in answers to several different questions. Although we were not given permission to ask personal questions of young students in all states, a sample of 3,821 from Years 7 to 12 provided some information on their own behaviour.

Males and females were equally likely to say that they had had sexual intercourse at least once and there is a generally smooth increase with age. At age 13 or less, approximately one in every 14 students has had sex. At age 14, this increased to one in seven students and to one in every four by age 15. Before they reach the end of Year 12, nearly one in every two has had intercourse. A complete analysis of these data will be published separately (Dunne et al. 1993).

There are some differences between the geographic regions. Males in rural towns were least likely to report having had sex and those in minor urban areas were the most likely, with this...
latter effect being most noticeable (and statistically significant) for older males. Figures 2 and
3 clearly illustrate these trends, though the contrast between rural and minor urban females is
not significant.

Figure 2: Boys and sexual intercourse - rural and urban differences

![Graph of boys' sexual intercourse by age and location]

Figure 3: Girls and sexual intercourse - rural and urban differences

![Graph of girls' sexual intercourse by age and location]

We were able to ask senior students (Years 10, 11 and 12) some detailed questions about early
sexual experiences, condom use and numbers of partners. It is clear that most students have
had some intimate sexual experiences, although there are few regional differences. Prior to
leaving school, approximately 80% of all students report passionate kissing and 70% sexual
touching (see Tables 1 and 2).
Table 1: Percentage of adolescents who first kissed passionately at various ages (N=2,591)

<table>
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<tr>
<th>REGION</th>
<th>AGE</th>
<th>Under</th>
<th>13</th>
<th>14</th>
<th>15 and over</th>
<th>Never</th>
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</thead>
<tbody>
<tr>
<td>MALES</td>
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<td>19.3</td>
<td>24.9</td>
<td>21.1</td>
<td>15.9</td>
<td>18.7</td>
</tr>
<tr>
<td></td>
<td>Minor Urban</td>
<td>23.4</td>
<td>20.2</td>
<td>16.9</td>
<td>20.1</td>
<td>19.4</td>
</tr>
<tr>
<td></td>
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<td>20.9</td>
<td>18.3</td>
<td>16.4</td>
<td>21.0</td>
</tr>
<tr>
<td>FEMALES</td>
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<td>15.6</td>
<td>29.0</td>
<td>24.2</td>
<td>17.5</td>
<td>13.6</td>
</tr>
<tr>
<td></td>
<td>Minor Urban</td>
<td>17.4</td>
<td>28.2</td>
<td>18.4</td>
<td>16.9</td>
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</tr>
<tr>
<td></td>
<td>Major Urban</td>
<td>19.7</td>
<td>23.2</td>
<td>20.1</td>
<td>18.4</td>
<td>18.7</td>
</tr>
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</table>

The pattern of more conservative sexual activity (at least in terms of later age at first intercourse) among rural males was also found when we asked students to say how many partners they had had in the past year. While 13% of rural males had three or more partners, these figures increased to 28% in minor urban areas and 30% in the major cities and this difference approached statistical significance. There is no real difference among females, with 20% (rural), 25% (minor urban) and 18% (major urban) having three or more partners in the past year.

Sexually active students were asked whether they were drunk or 'high' during the most recent occasion of intercourse. Major urban males (27.6%) were considerably more likely to have been drunk/high than were rural males (10.8%) and minor urban males (15.6%). In general, females (approx 15%) were less likely than males to report that they were drunk or 'high' and there were no significant differences between the regions.

The use of condoms

Some of the most interesting findings in this survey come from the data on condom use. Most young people report that at least one partner had a condom with him/her and that it was used during the most recent occasion of intercourse. Nearly half of all males said that they always use condoms. Males were significantly more likely to say that a condom was used and, as far as we can tell from students aged 14 to 20 in Years 10, 11 and 12, older students are less likely than young students to use condoms.

Again, the significant regional differences are found only among males. As can be seen in Figure 4, 91% of the rural males said a condom was used, while approximately 70% of urban males said this occurred. Just 50% of females said that a condom was used on the most recent occasion and there were no significant regional differences.
The rate of 91% condom use for rural males seems surprisingly high. While it may be correct, we should bear in mind that, despite the large scale of this survey, we found only 49 males in rural areas who had had sex. Statistical trends with such a small sample need to be replicated in further research. In general though, the findings strongly suggest that the majority of young people say that they use a condom during intercourse.

Talking about sex and AIDS with parents, teachers and friends

Students were asked to nominate (from a list of 12 options) the people with whom they had talked about sex and HIV infection. As we would expect, nearly everyone 'had talked to a friend of the same sex' (only 0.9% of young women had talked to a friend about sex).

Females were significantly more likely than males to have talked to a parent or teacher about these issues. It is noteworthy that young women were nearly three times more likely to have talked to their mother than their father. Young men also were more likely to talk to their mothers, although a substantial minority had talked to their fathers.

Discussion

In terms of risks to the sexual health of adolescents in rural Australia, there are some cautious grounds for optimism. The majority of rural youth in school delay intercourse until they are about 18 years of age and most sexually active young people say that a condom was used on the most recent occasion of intercourse. They have very good knowledge of how HIV infection is transmitted and the majority appear to have talked to their parents, teachers and other people about sex and STD.

We have noted elsewhere (Dunne et al. 1993) that the use of condoms by adolescents appears to be increasing and this is consistent with research from other western countries. To some extent, safe sex is now becoming a normal part of their sexual lives. This may be permeating youth culture well beyond those who are in school. Recently, Collins (1992) found that the majority of males (53%) in her sample of 'street kids' in a large rural town said they always used condoms and 72% of the young women surveyed said their male partners 'sometimes or always' used condoms. This trend is similar to research with Sydney street youth (Howard 1991).

Despite the positive signs, the fact remains that significant numbers of young people each year become infected with HIV and other STD. Although rural youth may be more sexually
conservative than those in major urban centres, the geographic differences are slight. As we have shown, perhaps one in five sexually active school students has three or more sexual partners in one year and adolescents are less likely to use condoms as they get older. We do not believe that 'safe sex' among heterosexuals occurs primarily for disease prevention. Rather, it is likely that pregnancy prevention remains the major goal.

Condoms are more accessible now than ever before and this would increase their use by young people. However, it remains to be seen whether they continue to use them with new partners later in life when other, more effective, contraceptives become available and affordable. A recent Scandinavian study showed that the longer a person had been sexually active, the drop in condom use almost mirrored the rise in oral contraceptive use (Traen et al. 1992).

We have discussed these issues in more detail in a third paper from the national survey (Donald et al. 1993). This research has some clear implications for education in schools and health clinics. First, programs should be diversified to include factual education about STD other than HIV infection. This should include frank description of signs and symptoms, since knowledge here is particularly poor. Second, there is a need to emphasise that oral contraceptives do not protect against STD infection. This may seem obvious and trite. However, as they enter their late teens and twenties, many young people decide to forego condoms, even with new or casual partners (ICSF 1992; Chapman et al. 1990). If we are to protect young people in rural areas from the horror of AIDS and the sometimes awful consequences of other STD, we must include sexual health issues as a central part of wider health promotion efforts.

Acknowledgments
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References
