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SEXUAL BEHAVIOUR AND KNOWLEDGE AMONG ADOLESCENTS IN IRELAND.

Abstract

Purpose: This survey examined the reported sexual activity and aspects of sexual knowledge of adolescents in both rural and urban areas in Ireland.

Methods: A questionnaire was administered to secondary school pupils aged 14-19 years during 2003-4. Data were analysed using the software package SPSS version 15.0. Associations between boys and girls, younger (≤ 15 years) and older respondents (≥ 16 years), and students from urban and rural schools were measured using the chi-square statistic.

Results: The findings indicated that over a third of respondents had experienced sexual intercourse. However, the consistent trend in all previous studies of a greater proportion of boys reporting that they had full sex was reversed in this study, with a higher proportion of girls stating that they had experienced their sexual debut. With regard to sexual coercion, while only a tenth of boys reported that they felt pressured to have full sex, approximately a third of girls reported that they had at some time felt pressurized. Boys manifested a poorer understanding of fertility than girls, with more half believing that a pregnancy would not occur while a woman was menstruating.

Conclusions: Endeavours designed to improve young people’s knowledge of reproductive physiology and the risks they pose to themselves by having sex without a condom need to be improved.

Key words: adolescence; Ireland; sexuality.

In the absence of any national survey data on adolescent sexual activity in Ireland, some indication of young people’s sexual behaviour and knowledge has emerged through regional and geographically-specific studies. In a survey,
conducted in 1994, of 2754 secondary school (high-school) pupils recruited from 40 schools in Galway city and county on the west coast of the country, the researchers found that 21% of 15-18 year olds reported having had sexual intercourse, with boys twice as likely as girls to report having experienced this [1]. The mean age of sexual debut was 15.5 years, and there were no gender differences regarding age at first sex. In a further survey published in 1996 of health behaviour of 1645 of 16-18 year old males and females drawn from a largely rural area in the centre of the country, 32% reported having had sexual intercourse [2]. A higher percentage of young men (38%) compared to young women (26%) reported this, and among these, 75% indicated that they had first sex between the ages of 15 and 17 years. In a Cork-based study [3] (Cork city is located 250 kilometres south of the capital Dublin) of 800 young people aged 15-24 published in 1997, 30% female respondents in the 15-17 year age cohort, and 45% of male respondents in this age cohort reported having experienced first sexual intercourse. Overall, 22% of all young women in the sample, and 32% of all young men, reported having their sexual debut by the age of 16.

Two additional retrospective studies also provide insights into adolescent sexual behaviour. In each of these studies, though, respondents were over 18 and asked in retrospect about their age at first sex. In the first of these studies, data were collected from 247 third level students at the Dublin Institute of Technology during 1996-7[4]. Findings indicated that 12% of respondents reported that they had had sexual intercourse before the age of 16, a considerably lower figure than that found in other studies. However, the disproportionately higher reporting of sexual intercourse among males over females found in other studies was also noted in this study - before the age of 16, young men were twice as likely to report having had sexual intercourse than were young women. In the recently published *Irish Study of Sexual Health and Relationships* [5] (conducted in 2005),
in which 7441 adults aged 18-64 were asked about their sexual debut, 31% of men and 22% of women in the youngest age cohort (18-24) reported having had vaginal intercourse before the age of 17 years.

Finally, in the only survey data from adolescents in the current decade - (a quantitative dimension of an otherwise largely qualitative study published in 2004) [6] involving 40 early school leavers aged 13-18 years from both Dublin and regional areas, it was found that 58.5% were sexually active. With regard to sexual pressure, a small number of young women in that study reported having experienced sexual violence or coercion, and several revealed that they had at some stage experienced either subtle or overt pressure to have sex. Following the consistent general trend of previous studies, there were higher reported levels of having had sexual intercourse among young men (72.2%) compared with levels for the young women (47.8%) [6]. Given the finding from the recently published Irish Study of Sexual Health and Relationships (ISSHR) (referred to earlier)[5] that being in an unskilled manual social class was linked with earlier sexual debut, the discrepancy between the findings of Lalor et al’s study (with relatively low levels of early sexual activity reported) and that of Mayock and Byrne (with relatively high levels of sexual activity reported) may reflect the wide socioeconomic differences between the samples, with the former being higher education students and the latter early school leavers; differences may also be partly accounted for by the eight-year time interval between the two studies.

In terms of rural/urban comparisons in Ireland, Lalor et al’s [4] study found that for a range of sexual activities (genital fondling, masturbation, oral sex and intercourse), people younger than 16 from urban areas were more likely to be sexually active than those in rural areas. However, Mayock and Byrne’s [6] study found no urban/rural variation in the age of first sex.
In view of the lack of comparative data over different time periods for Ireland, trends in age of first intercourse over time are unclear; however, in the ISSHR[6], data indicated a declining age at first sex from older to younger age cohorts. This suggests that Ireland is following trends found elsewhere in Europe in this regard [4].

Poor knowledge levels among young people about reproductive physiology and safer sex practices have also been found in Irish research [7, 3, 4]. Even in studies that have found sexual knowledge among adolescents to be generally high [1], considerable numbers of teens have reportedly engage in risky sexual behaviour. Rates of condom-use have varied across studies [1,2,3,7,8], and even within studies, depending on the specific question (whether the question pertains to condom-use at first intercourse, last intercourse or consistently), with rates as low as 66%[1] for consistent use being reported.

Apart from Mayock and Byrne’s study [6] (which comprised a small survey of a specific group of disadvantaged youths, and was predominantly a qualitative study), since the 1990s, no surveys have been published that have gathered data from adolescents in Ireland on their sexual behaviour and knowledge.

**Methods**

The survey presented in this article was part of a wider study that aimed to understand a range of aspects of adolescent sexuality in Ireland. (Aspects of the wider study are published elsewhere [9, 10, 11, 12, 13]). In the wider study, 29 focus group interviews were conducted with 226 secondary school pupils (102 females and 124 males) in Ireland during 2003-4, and after each focus group, participants were invited to fill out a short anonymous questionnaire. This questionnaire was designed to ascertain demographic details of the sample, and also contained questions about the respondent’s sexual behaviour and
knowledge. This article is focused on the results of this questionnaire. Data were analysed using the software package SPSS version 15.0. Associations between boys and girls, younger (≤ 15 years) and older respondents (≥ 16 years), and students from urban and rural schools were measured using the chi-square statistic.

The sample

Overall, participants were drawn from 10 schools, 5 in urban areas, 5 in rural areas, with a range of types of schools represented – 3 were same-sex girls' schools, four were same-sex boys' schools and three were co-educational schools (boys and girls mixed). Although a limitation of the study is that the socioeconomic group of individual pupils was not identified, the schools from where participants were drawn covered a range of neighbourhoods, with both middle and working-class roughly equally represented. The sample was aged between 13 years and 19 years with a mean age of 15.7 years (SD = 1.31). There was no significant difference between the ages of boys and girls. Just over half of the sample (51.3%) attended school in an urban region.

Results

Sexual experience

At the time of the survey, 34.7% of the whole sample reported that they had had full sexual intercourse. The average age at which this occurred was 14.96 years (SD = 1.20). There was no difference in the age at which boys and girls reported having had their first experience of sexual intercourse. A higher proportion of girls (39.8%) reported that they had full sex when compared to boys (30.6%); however the difference was found to be not significantly significant ($\chi^2 = 2.02, df = 1, p = 0.15$). However, when gender and the experience of intercourse was examined from the perspective of urban schools and rural schools, it was found that a higher proportion of girls (47.5%) than boys (20.5%) in urban schools
reported experiencing full sexual relations, whereas in rural schools the opposite was the case with a higher proportion of boys (45.1%) than girls (34.5%) reporting that they had experience of sexual intercourse. If comparisons are made between those aged 15 years and younger (n=111) and those aged 16 years and over (n=115), figures show that just under a fifth of all respondents aged 15 years and younger reported that they had intercourse, whereas over half of all those aged 16 years and older had had intercourse at the time of the study. Urban school students were slightly older (mean = 15.06 years SD = 1.26) than rural school students (mean = 14.89 years SD = 1.16) in terms of their reported age at which they first had full sexual intercourse; however the difference was not statistically significant (p > 0.05).

Alcohol or drug-use was not found to be a factor associated with young people having full sex with seventy per cent reporting that they were not using alcohol or drugs at the time. Of those who reported that they were using alcohol or drugs, thirty-two per cent were boys and twenty-eight per cent were girls. Again no significant difference was found between boys and girls ($\chi^2 = .17$, df = 1, $p = 0.68$), between those in the older (≥ 16 years) or younger (≤ 15 years) age group ($\chi^2 = .35$, df = 1, $p = 0.55$) nor between those who attended school in urban or rural settings ($\chi^2 = .03$, df = 1, $p = 0.86$).

The majority of respondents (60.4%) reported that they had experience of heavy petting, with no significant difference between boys and girls. When examined by age group, forty-five percent of respondents aged 15 years and younger had experienced heavy petting as compared to three-quarters of respondents aged 16 years and older. Furthermore, whereas just over half (55%) of the urban school-goers indicated that they had experience of heavy petting, two-thirds (66%) of pupils attending rural schools reported having had this experience. However the differences in proportions between urban and rural respondents were not statistically different ($\chi^2 = 2.98$, df = 1, $p = 0.08$).
Although the vast majority (81.8%) of young people reported that they did not feel pressure from their partner to have full sex, there was a significant difference in the proportion of boys and girls reporting pressure ($\chi^2 = 18.95$, df = 1, $p = 0.001$). Whereas only a tenth of boys reported that they felt pressured to have full sex, approximately a third of girls reported that they had at some time felt pressurised. No difference was identified between younger and older respondents in relation to their perception that they felt under pressure to have sex. Of those aged 15 years and younger, sixteen per cent reported that they were pressurised whereas a fifth of respondents aged 16 years and older reported pressure. There was a significant difference between urban and rural respondents in their perceptions of being pressurised to have full sex ($\chi^2 = 5.85$, df = 1, $p = 0.016$). Whereas twelve per cent of urban school students reported pressure to have sex, double the proportion (25%) of rural school students reported feeling such pressure. Furthermore, of those who reported being pressurised to have sex, the highest proportion (36.4%) were girls from rural schools followed by twenty four per cent of girls from urban schools.

**Condom use**

Of the proportion of young people who reported having had sexual intercourse, there was an even distribution in condom use with 50% reporting that they had, at some time, had sex without a condom. A significant difference in condom use was identified between boys and girls with 70% of girls reporting that they had full sex without their partner using a condom as opposed to 30% of boys reporting that they had full sex without a condom ($\chi^2 = 12.80$, df = 1, $p = 0.001$). Of those who had had intercourse, fifty-six per cent of all respondents who were aged 16 years or older reported that they had done so without using a condom whereas only a third of young people aged 15 years and younger reported that this had occurred. A higher proportion (55.6%) of young people from rural areas reported that they had had sex without a condom when
compared to respondents from urban areas (43.0%). However the differences were found to be not statistically significant ($\chi^2 = 1.27$, df = 1, $p = 0.26$).

**Fertility awareness and pregnancy**

Respondents’ perception of the seriousness of becoming pregnant was reflected in the finding that overall the vast majority of the sample (98.7%) reported that it would be either very serious or fairly serious to become pregnant (for girls) or for a partner to become pregnant (for boys). There were no differences between boys and girls, younger and older respondents, nor between urban and rural school students in their responses.

Respondents’ knowledge of when a girl was likely to become pregnant was variable. Approximately a fifth of boys and girls indicated that they did not know the time during the menstrual cycle which presented the greatest risk of becoming pregnant. Approximately a quarter of boys and girls reported that a girl is most likely to become pregnant just before her period, with only twenty-eight per cent of boys and thirty-eight per cent of girls (correctly) identifying that the risk of pregnancy is most likely to occur in the middle of the female’s menstrual cycle (Table 1).

There was also a significant age difference in terms of knowledge of the point in the menstrual cycle when a female was most likely to become pregnant. Whereas sixteen per cent of young people aged 16 years and older reported that they did not know when a girl could become pregnant, over a quarter of 15 year olds and younger were unaware of when this could occur. There was also a significant difference between younger (≤ 15 years) and older (≥ 16 years) age groups in correctly identifying when a girl is more likely to become pregnant with over forty per cent of young people aged 16 years and over identifying that a girl is more likely to become pregnant in the middle of her menstrual cycle while only a quarter of respondents aged 15 years and younger were correct in their
identification of this fact ($\chi^2 = 11.43, df = 4, p = 0.02$) (Table 1). A higher proportion (40%) of urban school going students than rural students (24%) correctly identified when a girl is more likely to become pregnant. In total, sixty-eight per cent of respondents did not know or incorrectly identified when a girl was more likely to become pregnant.

**Insert Table 1 Here**

A number of questions relating to myths regarding pregnancy were posed to respondents (see Table 2). Generally the majority of boys and girls reported that it was false to believe that a girl would not become pregnant if she has sex standing up or that a girl would not become pregnant the first time she has sex. Furthermore the majority of respondents reported that it was false to believe that a girl would not get HIV/AIDS if she was on the pill, and false to believe that one would not contract a sexual disease through oral sex. However, there was a statistically significant difference between boys’ and girls’ understanding of the possibility of pregnancy occurring if intercourse were performed during a period. While only one in ten of girls believed that it was true a girl cannot become pregnant during her period, over half of the boys believed this to be true. There was also a statistically significant difference between boys’ and girls’ understanding of the risks associated with oral sex. Whereas approximately 1 in 20 girls perceived that it was true that a person would not contract a sexual disease through oral sex, for boys this figure rose to approximately 1 in 6.

**Insert Table 2 Here**

Myths regarding pregnancy were also examined according to the age of the respondents. While approximately a quarter of 16 year olds and older believed
that it was true that a girl cannot become pregnant during her period approximately forty percent of 15 year olds and younger believed this to be true (see Table 3). Furthermore, approximately 1 in 10 of younger respondents were of the perception that if a girl is on the pill she will not get HIV/AIDS whereas the vast majority of older respondents believed this to be false. In addition just under a sixth of younger respondents believed that you would not get a sexually transmitted disease if you only have oral sex compared to just over six per cent of older respondents.

**Insert Table 3 About Here**

Perceptions of urban and rural students were generally the same regarding myths surrounding pregnancy. However, perceptions did differ in a couple of areas. A higher percentage of students in urban schools (36.8%) were more likely to believe that a girl cannot become pregnant during her period when compared to students from rural schools (28.4%); however the differences were not significant (p > 0.05). A significant difference was noted, however, between the perceptions of urban and rural school students in relation to the statement, ‘If a girl is on the pill she won’t get HIV/AIDS’ ($\chi^2 = 8.21$, df = 1, $p = 0.004$). Whereas only two per cent of the urban school-goers were of the opinion that this was true, approximately ten per cent of rural students agreed (incorrectly) with the statement. Indeed, over thirteen per cent of boys and eight per cent of girls attending rural schools reported that they thought this was true.

**Discussion**

Findings from this study support those of other studies in Ireland, indicating that approximately a third of school pupils in the sample had experienced sexual intercourse [6]. As expected, experience of sexual debut increased with age, with
about one in five of respondents who were under sixteen years having experienced sexual intercourse, compared to more than half of those aged 16 and over. The finding that contradicts that of all previous studies [1, 2, 3, 4, 5, 6] is the higher proportion of girls compared to boys reporting that they had full sex, although the difference was not found to be statistically significant. This may suggest higher levels of sexual activity among girls in recent years, or may alternatively reflect greater ease that girls have in admitting to their sexual experience.

Alcohol and drug use were not found to be associated with young people having full sex, though a more in-depth analysis of the relationship between these variables might have produced a more sophisticated picture. International literature has found the link between alcohol and drug-use and subsequent condom behaviour to be unclear; in a British study, Parkes et al [18] found that among adolescents, being “drunk or stoned” at intercourse was merely one factor associated with not using condoms, whilst a US meta-analysis of the relationship between alcohol and condom-use concluded that drinking was not necessarily related to unprotected sex, although alcohol use was linked to reduced condom-use at first intercourse.

Supporting the findings of previous Irish studies [1,2,3,7,8] and indeed those from Britain [19], inconsistency in condom-use was found in this study, with half of those who had experienced their sexual debut reporting having had at some stage had sex without a condom.

Of particular concern is that approximately a third of girls in the study reported that at some time they had felt pressurised by a partner to have sex, a figure far higher than that for boys. Sexual coercion in adolescence is a recurring theme in the literature [6, 11, 14, 15, 16], with the figure reported by young women
higher than that reported in a UK study in which approximately a quarter of the young women interviewed referred to sexual violence or various types of pressure to have sex against their wishes [17].

Knowledge as to when pregnancy is most likely to occur in a woman’s menstrual cycle was largely poor, with the majority either admitting ignorance or demonstrating inaccuracy in this regard. Indeed those who correctly identified the middle of the menstrual cycle as the most likely time for a pregnancy to occur were in the minority for both sexes and both age groups (15 and younger or 16 and older), although girls were a little more knowledgeable than boys about this, and knowledge was higher among those aged 16 and over compared to their younger counterparts. With regard to common myths about pregnancy, the notion that a girl would not become pregnant if she has sex standing up, and the notion that a girl would not become pregnant the first time she has sex were correctly discounted by the vast majority of the sample. However, the belief that a girl could not become pregnant during a menstrual period demonstrated high levels of (incorrect) affirmative responses among young men, with just over half of the young men agreeing with this statement. Overall, in terms of knowledge of fertility in the areas in which respondents were questioned, boys displayed far poorer knowledge than girls, though knowledge in some areas was better among older teenagers. Nonetheless, concurring with previous studies [7, 3, 4,], large swathes of ignorance about reproductive physiology were in evidence across the sample. In terms of HIV/AIDS prevention, while the vast majority of respondents accurately discounted any protective effect of the contraceptive pill in this regard, a sizeable minority of boys at rural schools reported an incorrect understanding of this.

Our findings point to the need to reinforce endeavours designed to improve young people’s knowledge of reproductive physiology and the risks they pose to
themselves by having sex without a condom. In addition, educational endeavours
designed to improve self-esteem and to augment negotiating skills in sexual
encounters need to be buttressed.

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