discussed the interpretation of the results, and contributed to the final paper. TJC will act as guarantor for the paper.

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Extent of regretted sexual intercourse among young teenagers in Scotland: a cross sectional survey

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The proportion of young people who have sexual intercourse before the age of 16 is increasing.[1] Previous studies have found that sexual intercourse before the age of 16 is often regretted.[1 2] Reported regret might result, however, from re-evaluation from a more mature perspective as most data have been reported retrospectively by older respondents. We conducted a large scale survey (the first such study in the United Kingdom) of sexual behaviour reported by young people aged under 15.

Methods and results

In 1996 and 1997 a questionnaire was administered to all third year pupils in 24 non-denominational state secondary schools in east Scotland as part of a sex education trial.[3] The research was approved by Glasgow University's Ethics Committee for Non-Clinical Research Involving Human Subjects and the relevant local authorities' education departments. After a pilot study, questions relating directly to sexual abuse were withdrawn as one education department prohibited them. The questionnaire was administered with both the young people's and their parents' consent by researchers under "examination conditions" without teachers present. An overall participation rate of 94% resulted in 7395 usable questionnaires (3665 boys, 3730 girls; mean age 14 years 2 months (with 95% aged between 13 years 6 months and 14 years 9 months)). The sample was representative of 14 year olds throughout Scotland in terms of parents' social class and proportion of one parent households (1991 census data). Regretted sexual intercourse, measured on a three point scale, was analysed by ordinal logistic regression (table).[4] The proportional odds assumption was tested and found to be tenable in all cases.

Experience of heterosexual intercourse was reported by 18.0% (661) of boys and 15.4% (576) of girls, of whom 74.8% (873 from 1167 valid responses) said that their first such experience had occurred since their 13th birthday. For first intercourse 60.2% (735/1220) of respondents reported using a condom throughout, 8.9% (109/1220) using withdrawal, and 18.9% (230/1220) using no contraception. Corresponding proportions for most recent intercourse were 60.7% (503/829), 8.7% (72/829), and 17.4% (144/829). None of these contraceptive data varied significantly by sex. A fifth of girls reported that they had been under some kind of pressure to have sex at both first (19.8% (112/566)) and most recent (18.1% (73/403)) intercourse, compared with 7.0% (45/640) and 9.1% (39/429) respectively for boys.

Two fifths (488; 263 boys, 225 girls) of all respondents said that first intercourse "was at about the right time," but 32% of girls and 27% of boys reported that it had happened too early, and 13% of girls and 5% of boys stated that it should not have happened at all. Such regret was not associated with social class, family composition, or reported condom use for either boys or girls. For boys, reporting that they had exerted pressure was associated with higher levels of regret: no other variables were significantly related to regret. For girls, however, all the variables presented in the table were associated with regret in univariate analysis. In a multivariate analysis of girls' data, reports of being pressured, exerting pressure, not having planned sexual intercourse with their partner, and relatively

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Factors and circumstances reported to be associated with regret of first sexual intercourse by sex (from total sample of 7395)

	Male				Female			
	Total No who had had intercourse	No (%) who said "too soon"	No (%) who said "should not have happened"	Univariate ordinal regression (df; P value)	Total No who had had intercourse	No (%) who said "too soon"	No (%) who said "should not have happened"	Univariate ordinal regression (df; P value)
All	647	174 (27)	33 (5)		569	180 (32)	71 (13)	
Parental monitoring score:*								
0-4	251	60 (24)	10 (4)	1; 0.11‡	147	46 (31)	16 (11)	1; 0.023‡
5 to 8	310	95 (31)	13 (4)		278	84 (30)	32 (12)	
9 to 12	86	19 (22)	10 (12)		144	50 (35)	23 (16)	
Religious belief:								
Religious or very religious:	46	13 (28)	2 (4)	1; 0.085‡	33	10 (30)	7 (21)	1; 0.042‡
Unsure	95	33 (35)	3 (3)		120	46 (38)	13 (11)	
Not religious	147	40 (27)	16 (11)		157	51 (33)	21 (13)	
Not at all religious	340	84 (25)	12 (4)		252	71 (28)	29 (12)	
Pressure:								
From boy	76	27 (36)	5 (7)	1; 0.043†	112	43 (38)	34 (30)	1; <0.0001†
From girl	42	13 (31)	3 (7)	1; 0.27†	11	5 (46)	3 (27)	1; 0.0091†
No pressure	508	128 (25)	25 (5)		438	127 (29)	34 (8)	
Expectation of sexual intercourse:								
Expected	186	57 (31)	6 (3)	1; 0.63†	182	68 (37)	16 (9)	1; 0.15†
Planned together	70	20 (29)	3 (4)	1; 0.81†	87	15 (17)	4 (5)	1; <0.0001†
Unexpected	275	74 (27)	12 (4)		239	83 (35)	38 (16)	
First sexual intercourse experienced with boyfriend or girlfriend:								
With boyfriend or girlfriend	439	120 (27)	21 (5)	1; 0.99	377	124 (33)	28 (7)	1; <0.0001
Not with boyfriend or girlfriend	208	54 (26)	12 (6)		192	56 (29)	43 (22)	
"Drunk or stoned" at first sexual intercourse:								
Yes	259	62 (24)	16 (6)	1; 0.53	226	76 (34)	38 (17)	1; 0.0057
No	372	109 (29)	15 (4)		334	102 (31)	32 (10)	
Talked about contraception with partner before first sexual intercourse:								
Yes	227	67 (30)	7 (3)	2; 0.12	252	72 (29)	22 (9)	2; 0.0049
No	208	49 (24)	8 (4)		183	56 (31)	35 (19)	
Cannot remember	212	58 (27)	18 (9)		134	52 (39)	14 (10)	

Analysis shown in this table does not include data for 14 boys and 7 girls who did not answer the question on regret.
Data were missing for some categories (religious belief, pressure, expectation of social intercourse, "drunk or stoned" at first intercourse) for both girls and boys.
Social class of father, social class of mother, family composition, and using a condom during sexual intercourse did not show any significant association with regret (P>0.05).
*Adapted from a scale designed by the Department of Child Health, University of Exeter (0=low level of parental monitoring, 12=high level).
†Compared with the final category.
‡Linear trend.

high levels of parental monitoring were significantly related to regret.

Comment

Reports from young people with recent experience of sexual intercourse showed higher levels of regret for boys and lower levels of regret for girls than previously reported retrospectively by older respondents.[1 2] For both sexes pressure surrounding the event was associated with regret, and, for girls, relatively high levels of parental monitoring and lack of prior planning with their sexual partner were also significant. In short, for young women regret seemed to be related to lack of control. Health promotion should aim to help young people to develop relationship and negotiation skills. Sexual health education focusing on such skills can increase control. Moreover, anticipated regret is associated with subsequent contraceptive use.[5] Therefore, making young people aware of the potential emotional and relationship consequences of early sexual intercourse may delay first intercourse.

Contributors: DW, SS, CA, GR and GH designed the study and, with MH and KB, designed the questionnaire. MH, DW, KB, and GR collected the data, which were analysed and interpreted by MH, GR, and DW. DW drafted the first version of the paper, and MH assimilated comments; all authors contributed to the final draft. DW, MH, and GR are the guarantors.
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Correction

Association between postnatal catch-up growth and obesity in childhood: prospective cohort study

Owing to a technical problem the references were not included in the main text of this paper by Ken K L Ong and colleagues (8 April, pp 967-71). We apologise for this and have reinstated the numbers in our website version; readers may access the corrected article at www.bmj.com/cgi/content/full/320/7240/967.