

## THE CONSISTENCY OF RECALLED AGE AT FIRST SEXUAL INTERCOURSE

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**Summary.** It is widely believed that people can remember the age at which they first had sexual intercourse. Questions about age at onset are routinely asked in population sexual behaviour surveys and in clinical history-taking. However, there are limited test–retest data, especially with regard to individual differences in unreliable recall. In this study, telephone interviews and follow-ups an average of 15 months later were conducted with 570 non-virgin subjects aged between 28 and 73 years. Test–retest correlations for recalled age at first intercourse were 0.85 for females and 0.91 for males. Consistency was slightly lower among older people and women with a history of sexual abuse. There were no significant associations between consistency of recall and measures of personality, educational background or history of alcohol dependence and depression.

### Introduction

There are strong reasons to believe that people accurately remember the age at which they first had sexual intercourse. This single event is an important personal milestone and memory of the approximate date and age will be embedded within the context of other significant events, such as the final year at school, start of employment or college, leaving home, wedding day and so on, which assist in the temporal organisation and recall of personal facts (Bradburn, Rips & Shevell, 1987).

However, there has been little empirical analysis of the consistency of recalled age at first intercourse (Catania *et al.*, 1990; Rohan, McLaughlin & Harnish, 1994). The reliability of self-reports in cross-sectional surveys is usually inferred from high inter-item agreement (Dunne *et al.*, 1994), from the small proportions of people who cannot remember (Johnson *et al.*, 1994) and from informal feedback from survey interviewers who generally find that the majority of subjects give quick and unequivocal answers to this question.

Kinsey, Pomeroy & Martin (1948) re-interviewed 162 males an average of 39 months after the initial survey and found a correlation between two estimates of age

at first coitus of 0.81, while correlations were much lower for age at first petting (0.63), first ejaculation (0.58) and pre-adolescent homosexual play (0.50). In their study of women, Kinsey *et al.* (1953) did not report correlations, but found similar patterns of agreement between answers in repeat interviews. A small longitudinal study of 74 young adult female clinic attenders interviewed 5 months apart by Rohan *et al.* (1994) found a very high correlation between two reports of age at first intercourse ( $r = 0.97$ ).

Despite indications of high consistency, the correlations are not at unity and it is useful to examine background factors associated with failure to report the same answer on two or more occasions. Kinsey *et al.* (1953) found no difference between males and females in the repeatability of recalled age of onset. Present age may be influential, given the length of time between onset and the survey and possible age-related memory impairment. Another potential source of inconsistency is confounding with a history of sexual abuse. For example, a person may refer to a childhood episode of abuse in answer to a general sexual history question on one occasion but not another, perhaps because rapport with different interviewers varies or because memory of early sexual abuse is sometimes incomplete and idiosyncratic (Williams, 1994).

Personality characteristics, such as a propensity to lie or give socially 'desirable' answers, may reduce the consistency of self-reports if these people are reactive to subtle variations in the interpersonal context of different interviews. Further, poor long term memory might be related to psychopathology, particularly depression (Stromgren, 1977) and alcohol dependence. The aim of this paper was to examine the test-retest reliability of recalled age at first intercourse and to establish whether some individual differences are associated with inconsistent reporting in a telephone survey.

## Method

Subjects were adult twins from the Australian National Health and Medical Research Council twin panel, a volunteer register which began recruitment in the late 1970s. These people had volunteered for surveys which concentrated on alcohol use and general health in 1979–81, 1988–89 and 1992–93. For full details of the sample, response rates and survey methods, see Heath *et al.* (1994).

This paper is based on data from semi-structured psychiatric telephone interviews conducted in 1992–93 and again in 1993–94, the two interviews taking place an average of 15 months apart. The analysis also included data on personality, educational background and sexual abuse which were collected from the majority of these subjects in a 1988–89 postal survey.

Subjects approached for the 1993–94 follow-up telephone interview ( $N = 667$ ) were members of twin pairs where at least one twin reported a positive lifetime history of alcohol dependence in 1992–93. The 1993–94 response rate was 88.5% ( $n = 590$ ). Of this group, 576 provided answers to the question about age at first sexual intercourse. The analysis includes 302 non-virgin males (mean age 39.6 years, range 28–72 years) and 268 non-virgin females (mean age 39.4 years, range 28–73 years). The majority of men (70.9%) and half of the women (51.1%) had a history of alcohol dependence. In addition, 18.7% of males and 16.6% of females had reported one or more episodes of severe depression in the 1992–93 interview.

### Measures

Age at onset was estimated by the question: 'How old were you when you first had sexual intercourse?'. A history of sexual abuse was assessed with two questions. In the 1992–93 telephone interview, after answering the question about age at onset, both males and females were asked 'Before age 18, were you ever forced into sexual activity, including intercourse?'. In the 1988–89 postal survey, female subjects only were asked 'Have you ever, at any time in your life, had any of these events occur?'. One option was 'Rape or sexual assault', with a yes or no answer requested.

Measures of neuroticism, extraversion, psychoticism and social desirability (Lie) were obtained from the Eysenck Personality Questionnaire (Eysenck & Eysenck, 1975), which was completed by 249 males (82%) and 228 females (85%) in 1988–89. Estimates of lifetime DSM-III-R alcohol dependence and depression were obtained in 1992–93 for all subjects using the Semi-Structured Assessment for the Genetics of Alcoholism (Bucholz *et al.*, 1994).

### Results

Five hundred and seventy subjects reported an age at first sexual intercourse on both occasions. Six subjects who were virgins at time 1 remained so at time 2 and were excluded from further analysis. The mean recalled age at first intercourse was 18.4 years ( $SD = 3.5$ , range 8–46) at time 1 and 18.6 years ( $SD = 3.6$ , range 8–46) at time 2. The test–retest Pearson correlation coefficient for the full sample was 0.88 (males,  $r = 0.91$ ; females,  $r = 0.85$ ), which indicates a very high level of consistency.

In order to examine variation in an individual's self-reports, a difference score was derived from the absolute value of time 1–time 2 recalled age of onset. The distributions for males and females are shown in Table 1. Among males, a single outlier who had a discrepancy of 15 years (more than double the nearest value) was removed, and the discrepancy scores were log transformed. All correlations were computed with these transformed data.

Correlations between age, length of time between the two interviews, personality measures and the difference scores are shown in Table 2, separately for males and females. There were significant though small positive correlations between present age and inconsistent recall. The length of time between telephone interviews, which ranged from 2.3 to 24.7 months, was not associated with consistency and, for women, no correlations with the four measures of personality were significant. However, among men, there was a non-significant trend for a negative correlation between scores on the Lie scale (a measure of social desirability) and recall consistency.

Finally, associations between recall consistency and the categorical and ordinal variables were examined. There were no significant associations between the repeatability of recalled age and the subjects' sex, educational background or lifetime diagnoses of alcohol dependence or depression (data not shown). With regard to sexual abuse, only six men reported a positive history so males were excluded from the analysis. Among women, 41/267 (15.4%) reported that they had been raped at some time in their lives and/or had been forced into sexual activity before the age of 18.

There was a small but significant association between low consistency of recall (i.e. discrepancy  $> 1$  year) and a history of sexual abuse ( $\chi^2 = 3.93$ ,  $df = 1$ ,  $p = 0.048$ ), with

**Table 1.** Inconsistency in recalled age at first intercourse

		Difference score (Time 1 – Time 2)*															
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Males	n	168	86	29	10	4	0	3	1	0	0	0	0	0	0	0	1
(n = 302)	%	55.6	28.5	9.6	3.3	1.3	0	1.0	0.3	0	0	0	0	0	0	0	0.3
Females	n	170	67	19	4	2	1	1	1	1	1	0	1	0	0	0	0
(n = 268)	%	63.4	25.0	7.1	1.5	0.7	0.4	0.4	0.4	0.4	0.4	0	0.4	0	0	0	0

\* Absolute values in years.

**Table 2.** Correlations between difference scores and age, test-retest duration and personality

	Males ( <i>n</i> = 301)	Females ( <i>n</i> = 267)
Current age	0.118*	0.128*
Test-retest interval	0.027	-0.038
Neuroticism	-0.065	0.060
Extraversion	0.055	-0.054
Psychoticism	0.072	-0.015
Lie	-0.122†	-0.022

For personality scales, *n* = 248 males and 228 females.  
Significance levels: \**p* < 0.05; †*p* < 0.06.

**Table 3.** Inconsistent recall and history of sexual abuse among women\*

	Magnitude of the test-retest difference in recalled age (years)					
	0	1	2	3-6	7+	All
Abused	25	7	3	2	4	41
Not abused	144	60	16	6	0	226

\*Raw numbers of female subjects.

detailed data shown in Table 3. Although numbers are small, there is a clear trend for women who had the most discrepant reports of age at first intercourse to be more likely than others also to report abuse. Six of the twelve women who had discrepancy scores greater than 2 also reported abuse, and all four women with a recall discrepancy of greater than 6 years claimed to have been sexually abused. However, most women who recalled at least one episode of abuse (32/41, or 78%) gave answers to both questions about age at first intercourse which were identical or differed by only 1 year.

## Discussion

This analysis supports the general belief that recall of a person's age at first sexual intercourse is reliable. The majority of adult subjects (84.1%) gave two answers which were identical or within 1 year of each other, a figure which is very close to that observed by Kinsey *et al.* (1953). There was only a modest association between inconsistent recall and current age, despite the fact that some people were recalling an event which happened more than 40 years prior to interview. The data from women are similar to other studies which show that ages of major events in sexual development

and reproduction (e.g. age at menarche and spontaneous abortions) are recalled reliably (Treloar & Martin, 1990; Wilcox & Horney, 1984).

There were no significant associations between recall consistency and several measures of psychopathology, which supports some studies on the reliability of recall of early experiences among people with a history of psychiatric problems, especially depression (Brewin, Andrews & Gotlib, 1993). This sample included many people with a lifetime history of alcohol dependence, although severe alcohol-related cognitive impairment is not indicated in the recall data and is unlikely among this group of volunteers who could complete a 40-minute telephone interview.

For most individuals, recall of first intercourse is unambiguous. However, a history of sexual abuse among women does compromise the consistency of answers to a small extent. Although most women with a history of abuse gave consistent answers about age at first intercourse, 50% of women whose reports differed by more than 2 years had also reported that sexual abuse had occurred at some time in their lives. When answering survey questions in telephone interviews, some respondents may recall or disclose abusive episodes on one occasion but not another, possibly depending upon rapport during the interview or subtle, uncontrolled differences in probing by interviewers. It is also possible that women who have been abused have incomplete memories of these events (Williams, 1994), and recall might be evoked by variations in the content of interviews, especially if mental health problems are being discussed.

Given the recent growth in population sexual behaviour surveys, there is a need to examine the test-retest reliability of a broad range of questions. In this study, reliability of recalled age at first intercourse was relatively insensitive to differences in age, sex, test-retest interval, educational background, personality and psychopathology, though this might not be generalisable to self-reports of other sexual feelings and acts, especially where frequency judgements are required. Further research should also look at the effects that a history of sexual abuse might have upon the replicability of retrospective reports of early experiences.

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