

Personal and Social Factors Influencing Age at First Sexual Intercourse

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Early initiation of sexual activity is a concern, in part because of increased risk of sexually transmitted diseases, including HIV, and unwanted pregnancies among young people. In this study, 241 high schoolers were administered a questionnaire to establish the relationships between age at first sexual intercourse and personal qualities (sexual style, attractiveness, physical maturity, restraint, autonomy expectations, and attitudes to gender roles), smoking and drug use, and aspects of the social context (social activities, media impact, peer norms). There were few effects of sex of respondent and none in which respondents' sex impacted on age of initiation. Overall (and among the male sample), perceptions of greater physical maturity, greater use of uncommon (mostly illicit) drugs, and expectations of earlier autonomy significantly differentiated between early and later initiators. This group of factors tends to confirm the view that early experience of sexual intercourse is correlated with problem behaviors and a press toward "adult" behaviors. For girls, this pattern was even clearer, with use of uncommon drugs being replaced as a significant contributor to early sexual experience by relative lack of restraint. We conclude that the desire to achieve the transition to adulthood at an earlier age than their peers constitutes a powerful incentive for young people to become sexually active.

KEY WORDS: adolescents; sexual initiation; sexuality; sexual intercourse.

INTRODUCTION

Studies in many Western countries reveal that a large number of teenagers have had sexual intercourse, that they do so at an earlier age than previous generations,

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and that they engage in a wide variety of sexual practices (Farrell, 1978; Hofferth and Hayes, 1987; Kraft, 1991; Meschke and Silbereisen, 1997; Rosenthal *et al.*, 1990). At the same time, there have been an increase in sexually transmitted diseases, the appearance of HIV in epidemic form, and considerable numbers of unplanned teenage pregnancies (Moore *et al.*, 1996). In the context of concerns about the sexual health of young people and the established links between these risks and early sexual intercourse (Moore and Rosenthal, 1993; Mosher, 1985), it is important that we identify the factors associated with early or late sexual initiation among teenagers so that we can identify ways of providing effective education programs.

Models of sexual initiation tend to draw on both biological and psychosocial components, although the emphasis may vary. Biological explanations suggest that the timing of puberty has a significant influence on initiation of sexual intercourse for boys, but there appears to be a more complex relationship for girls, with social controls playing a more important role than pubertal timing (Udry, 1979, 1990; Udry and Billy, 1987).

Social influences on early onset of sexual activity include broad demographic categories such as race, gender, class, education, and family structure (Chilman, 1983; Furstenberg *et al.*, 1987; Hofferth and Hayes, 1987; Moore and Rosenthal, 1993; Scott-Jones and White, 1990). Other researchers have examined aspects of the social context, such as family environment, peer relations, school, religion, and media influence. Poor communication, lack of support, and low levels of parental monitoring have been shown to predict early onset of teenage sexual intercourse (Hogan and Kitagawa, 1985; Jessor and Jessor, 1977; Meschke and Silbereisen, 1997; Miller *et al.*, 1986), while close relationships with parents are associated with later onset (Greene, 1985; Weinstein and Thornton, 1989).

Peer influences examined to date are confined largely to perceptions of peer behaviors and beliefs (Newcomer *et al.*, 1980), with young people who believe that their peers are sexually active more likely to report being so themselves (Dunne *et al.*, 1993; Romer *et al.*, 1994). Other studies have assessed the impact of associating with sexually active peers, with some support for the hypothesis that perceptions of the rewards and costs of sexual behavior influence adolescent sexual activity (Benda and DiBlasio, 1994).

In addition to family and friendship networks, key social institutions that have received attention are school, religion, and the media. Despite parents' concerns, it appears that sex education in schools does not lead to earlier (or more extensive) sexual activity but may delay onset of sexual intercourse (Baldo *et al.*, 1993; Kirby *et al.*, 1994). Turning to religion, young people who are frequent churchgoers and who believe in the importance of religion are less likely to report being sexually active than their less religious peers (Dunne *et al.*, 1993; Hofferth and Hayes, 1987).

When researchers turn to characteristics of the teenager, apart from considering physical development (usually pubertal status), the approach has been to regard early initiation of sexual activity as one manifestation of a general tendency to engage in problem behavior (see, e.g., Jessor and Jessor, 1975). Consistent with this

view, relationships have been established between early sexual activity and alcohol consumption, smoking behavior, delinquency, and use of illicit drugs (Elliott and Morse, 1989; Jessor and Jessor, 1977; Kraft, 1991). Few studies report the influence of teenagers' personal characteristics apart from the qualities associated with "problem behaviors."

In the present study, we extend previous research in three ways. First, we take account of several important characteristics which have been linked with other measures of sexual experience and to other influences on early sexual activity. These are restraint and teenagers' press for autonomy, as well as teenagers' perceptions of their physical maturity and attractiveness relative to their peers and their beliefs about gender roles.

It has been suggested that beginning sexual activity is likely to be related to teenagers' perceptions of their transition to adulthood (Scott-Jones and White, 1990). One way of conceptualizing this striving to adulthood is in terms of a press for early autonomy or, in Udry's (1990) terms, a "strain toward maturity." There is considerable evidence that young people vary in their expectations for autonomy or independence. There are two possible explanations for early expectations of autonomy. One indicates personal growth, maturity, and a sense of responsibility. The other reflects a less positive meaning which could be interpreted as "pseudoautonomy," that is, a too-early detaching from parental guidance and supervision. The latter interpretation is supported by the relationships found between autonomy timetables and outcomes such as misconduct and lack of restraint (Feldman and Quatman, 1988). In the sexual domain, early expectations for initiation of intercourse have been shown to be related to press for early autonomy (Rosenthal and Smith, 1997), but the link between autonomy expectations and behavior has not been examined.

Given its relationship, conceptually and empirically, with early autonomy expectations (Feldman and Quatman, 1988), restraint [defined as the tendency to be considerate of others, to act responsibly, to control impulses, and to inhibit aggressive behavior (Weinberger and Schwartz, 1990)] is a likely marker of teenagers' sexual activity (Chilman, 1983; Elliott and Morse, 1989; Feldman and Brown, 1993; Feldman *et al.*, 1995; Jessor and Jessor, 1977; Rodgers and Rowe, 1990). However, the link between age of initiation and restraint has not yet been documented.

Despite apparent shifts in attitudes to gender roles, there is considerable evidence that a "double standard" still exists with respect to young males' and females' sexuality (for a summary see Moore and Rosenthal, 1993). We might therefore expect that those young people who hold traditional attitudes would be likely to differentiate more than their egalitarian peers between acceptable sexual behaviors for males and females (Cvetkovich and Grote, 1980).

A second important extension of earlier research is a focus on the relationship between early sexual activity and specific sexual self-perceptions. In earlier studies (Buzwell and Rosenthal, 1996; Rosenthal *et al.*, 1991), we have argued the need

to translate generic constructs such as self-efficacy and self-esteem into the sexual domain if we wish to examine adequately relationships with sexual practices. In particular, we have shown that *sexual style* is a useful means of describing the ways in which young people construct a sense of sexual identity for themselves (Buzwell and Rosenthal, 1996; Smith and Rosenthal, 1997). Sexual style has been shown to be related to virginity status, levels of sexual risk-taking, numbers of sexual partners, and casual sex (Buzwell and Rosenthal, 1996) and is defined by a set of sexual self-perceptions, namely, sexual self-esteem, sexual self-efficacy, and sexual self-beliefs. Sexual self-esteem refers to one's evaluation of self-worth as a sexual being. Sexual self-efficacy denotes one's sense of mastery in the sexual domain and sexual self-beliefs examine individuals' sexual perceptions of themselves with respect to physiology (arousal), the externalization of desire (exploration), interpersonal priorities (commitment), and reaction to sexual situations (anxiety).

Third, we extend the examination of aspects of the social context that have been shown to be important, namely, teenage leisure activities and their use of various media. Risky leisure activities have been shown to be associated with early onset of sexual intercourse (Elliott and Morse, 1989; Kraft, 1991; Meschke and Silbereisen, 1997). In the present study, we focus on nonproblematic leisure activities that do not necessarily provide romantic and/or sexual opportunities, namely, sporting, club, church, or community activities, and examine whether teenagers who engage in these activities are more or less likely to be sexually active at an early age.

The role of the media in shaping young people's sexual attitudes has been well documented (Abrams *et al.*, 1990; Cullari and Mikus, 1990; Rosenthal and Smith, 1995, 1997), but there has been little examination of the impact of sexually targeted media such as sexually explicit material and radio talk shows which deal solely with sexual issues [but see Brown and Newcomer (1991) and Roberts (1993) for some evidence of links between sex-related television material and sexual experience]. It is likely that these will have a greater impact on young people's sexual behaviors and beliefs than media which produce non-sexually related material.

Finally, because perceptions of peer sexual behavior norms and smoking and use of alcohol and illicit drugs have all yielded strong associations with early onset of sexual intercourse (Hofferth and Hayes, 1987; Moore and Rosenthal, 1993), we include them here to establish the strength of their effects in the light of other potential predictors.

METHOD

Respondents

Participants were 147 young women (mean age, 16.6 years) and 94 young men (mean age, 16.6 years) involved in a longitudinal study of adolescent sexual health.

Data were collected in 1994 (t_1) and 1995 (t_2). Participants at t_1 were drawn from grades 10 and 11 (modal ages, 15 and 16 years, respectively) at four coeducational secondary schools in metropolitan Melbourne. One year later, students in grades 11 and 12 (modal ages, 16 and 17 years, respectively) at the same four schools participated in the follow-up study.

Procedure

All students taking part in the study completed an anonymous questionnaire during class time. There were two data collection phases. At time 1 (t_1), ethics approval was obtained from the university and informed consent was sought from parents of all students enrolled in grades 10 and 11 at the four schools. Of 1507 consent forms sent to parents, 745 were returned, and of these, 708 parents and students (95% of students whose forms were returned) agreed to participate. However, 121 students were absent on the day of testing and 37 questionnaires were not able to be used due to incomplete data. Sufficiently complete questionnaires were received from 550 students.

At time 2 (t_2) the same procedure for obtaining informed consent was employed. Of the 1335 letters sent to parents of students (who were now in grades 11 and 12), 622 were returned, and 518 parents and students (83% of those who returned consent forms) agreed to participate in Phase 2 of the study. The final number of questionnaires after incomplete questionnaires had been excluded was 415.

Some of the young people participated only in 1994 ($n = 284$), some participated only in 1995 ($n = 146$), and others participated in both 1994 and 1995 ($n = 265$). For those young people who gave information at both t_1 and t_2 , only the 1995 data were used. Students who did not answer at least 85% of the questions were deleted from the data file. Of the remaining 662 respondents, 241 (36.4%) had experienced sexual intercourse. These respondents were the focus of the analyses reported here.

Measures

The outcome variable of interest, reported *age at first experience of sexual intercourse*, was assessed as younger than 13 years of age, 14 years, 15 years, 16 years, 17 years, or 18 years or older. Responses were recoded as "15 years or younger" (early initiators) and "16 years or older" (late initiators). We selected 15 years of age as our cutoff for early initiators because a national study of Australian high schoolers (Dunne *et al.*, 1993) indicated that fewer than 25% of 15 year olds were sexually experienced.

Personal Characteristics. In addition to sexual styles, personal characteristics included measures of restraint and perceptions of personal characteristics (desire for autonomy, attitudes to gender roles, attractiveness, and physical development).

Following Buzwell and Rosenthal (1996), respondents were assigned on the basis of cluster analysis to one of five *sexual styles* (Naive, Unassured, Competent, Adventurous, or Driven) on the basis of their scores on three domains of sexual self-perceptions: sexual self-esteem, sexual self-efficacy, and sexual attitudes. Two scales, *personal self-esteem* (“I feel comfortable with my body”) and *self-esteem with respect to sexual partners* (“I am comfortable being affectionate with dating partners”), assessed sexual self-esteem (Rosenthal *et al.*, 1991). *Sexual self-efficacy* (Dunne *et al.*, 1993) assessed how confident respondents were in the sexual domain, specifically in their ability to say no to unwanted sex, to buy and use condoms, and to be assertive in achieving sexual satisfaction. Finally, four *sexual attitudes*, commitment, exploration, arousal, and anxiety, were assessed (Goggin, 1989).

Sexually naive individuals, the majority of whom were female and virgins, exhibited low sexual self-esteem, low sexual self-efficacy, very low levels of arousal and exploration, and high levels of anxiety and commitment. The *sexually unassured*, predominantly male and virgins, exhibited low sexual self-esteem, very low sexual self-efficacy, high levels of anxiety, and moderate levels of arousal, commitment, and exploration. The *sexually competent* style is characterized by high sexual self-esteem and self-efficacy but moderate levels of arousal, commitment, exploration, and anxiety. Respondents exhibiting this style tended to be among the oldest in the sample and were slightly more likely to be female than male, and most were sexually experienced. *Sexually adventurous* respondents were older, more likely to be male, and sexually experienced. They had high levels of sexual self-esteem and self-efficacy, extremely high arousal and exploration, and low levels of commitment and anxiety. Finally, the *sexually driven* group consisted almost exclusively of sexually experienced males who had very high sexual self-esteem and moderate levels of sexual self-efficacy, very high arousal and exploration, and low levels of anxiety and commitment.

Restraint was assessed using a 12-item scale (Weinberger and Schwartz, 1990). Items included “People who get me angry need to watch out” and “I break laws and rules I don’t agree with.” Response categories ranged from 0 (almost never) to 4 (almost always) and the score was computed as the mean of the 12 items.

A measure of the timetable for independence from parents [*autonomy timetable* (Feldman and Rosenthal, 1991)] was derived from a 10-item scale. Items included a range of activities and respondents indicated the age at which they thought the activity was appropriate [before age 14 (0), 14–15 years (1), 16–17 years (2), 18 years or older (3), never (4)]. Activities included “go to boy–girl parties at night,” “make your own doctor and dentist appointments,” and “choose your own friends even if your parents disapprove.” The score was computed as the mean of the 10 items, with higher scores indicating later autonomy timetables.

Attitudes to *traditional gender roles* were assessed through a 10-item scale (Lewis *et al.*, 1988). Items included “Women are less effective in arguments than

men because they become too emotional” and “A career is more important to a man’s self-esteem than a woman’s.” Response categories ranged from “disagree strongly” (1) to “agree strongly” (6). Scores were computed as a mean of the 10 items. *Attractiveness* was assessed with respect to same-sex peers of the same age (less attractive than most, about as attractive than most, more attractive than most), as was *physical development* (less mature than most, about the same as most, more mature than most). Because only two respondents considered themselves to be “less physically mature than most,” this category was collapsed with “about the same as most” for data analysis.

Social Context. Social context measures included leisure activities, impact of the media, perceptions of peer behaviors, and smoking/alcohol/drug use.

Social activities outside home or school were assessed as the hours spent each week in sport or club activities (4 or less, 5 to 9, 10 or more). *Media impact* was examined by assessing, for 11 print and broadcast media, the reported frequency of use and importance as a source of information about sexuality. Frequency of use was scored from 0 (never) to 3 (very often). Importance was scored from 1 (not at all important) to 3 (very important). For each source, the product of these two scores was computed and subjected to factor analysis. The first of two factors included *sexually explicit media* (four items: *Playgirl/-boy* or *Penthouse*, TV shows that present specific coverage of sex-related issues, videos with sexual themes, and X-rated videos) (Cronbach’s $\alpha = .70$). The second factor, *general media*, included the remaining seven items: magazines targeted at young women (such as *Cleo* and *Cosmopolitan*), romantic fiction novels, radio talkback sex and relationship programs, TV talk shows, TV soaps, video clips, and films (Cronbach’s $\alpha = .72$). Scores ranged from 0 to 3, with a high score indicating greater impact.

Perceptions of peers’ sexual behaviors (peer norms) were assessed by asking, “How many girls/boys your age have engaged in the following behaviors with a boy/girl?” (none of them, very few, almost half, most of them, all of them). For data analysis, responses were collapsed into “less than half” or “more than half.”

Smoking behavior and use of alcohol and illicit drugs (marijuana, benzodiazepines, heroin, cocaine, inhalants, and amphetamines) were measured as follows. Current cigarette smoking was coded on a 4-point scale from “none” (1) to “more than 20 per day” (4). A composite measure of *alcohol use* was derived from frequency of use and usual amount consumed. We identified respondents who did not drink alcohol (0), those who drank only modest amounts (one to four drinks) (1), those who drank potentially excessive amounts (five or more drinks) less than once a week (2), and those who drank potentially excessive amounts (five or more drinks) once a week or more (3).

The use of marijuana, benzodiazepines, heroin, cocaine, inhalants and amphetamines was coded as “never” (0), “once” (1), “occasionally” (2), or “often” (3). The eight measures were subjected to factor analysis and two factors emerged. The first included alcohol, cigarettes, and marijuana (called *Common Drugs*) and the

second included the remaining items (*Uncommon Drugs*). The resulting two scales had an adequate internal consistency (Cronbach's $\alpha = .61$ and $.66$, respectively) and scores were computed as the means of the respective items (range, 0 to 9), with a high score indicating greater use. The naming of the factor including marijuana as *Common Drugs* is warranted given that a 1995 study found that 28% of 14–19 year olds had used marijuana in the previous 12 months (Department of Health and Family Services, 1996).

RESULTS

Missing values were replaced in one of two ways: (a) missing values for continuous variables or for individual items which were summed to produce a continuous scale were rectified by substituting the mean response given by respondents of the same gender; and (b) missing values for categorical variables were rectified by substituting the modal response given by respondents of the same gender.

Of the respondents, 44.4% were “early” initiators and 55.6% were “late” initiators and there was no association between gender and age at first experience of intercourse.

As the first step in establishing the contribution of our personal and social variables to age of initiation, we conducted χ^2 tests of association and t tests as appropriate. Tables I and II show the responses of earlier and later initiators as a function of gender.

There were no significant associations of age of sexual initiation with sexual style, attractiveness relative to their peers, or perceptions of how many male or female peers have engaged in intercourse. No relationship was found between age at first experience of intercourse and extent of use of general or sexually explicit media.

Perceptions of greater physical maturity relative to their peers was significantly associated with earlier age at initiation. Those young people who used common drugs (cigarettes, alcohol, marijuana) were more likely to be early initiators, as were those who used uncommon drugs. Lower levels of restraint and earlier autonomy timetables were reported by earlier initiators. Finally, late initiators expressed stronger endorsement of traditional gender roles than did early initiators. There was a nonsignificant trend for time spent in social activities to be associated with age of sexual initiation.

There were few significant associations between sex of respondent and age at sexual initiation. Among males, early initiation was associated with perceptions of greater physical maturity [$\chi^2_{(1)} = 4.93, p < .05$], use of hard drugs [$t(92) = 2.16, p < .05$], and desire for earlier autonomy [$t(92) = 2.60, p < .05$]. Among the female respondents, the association between early initiation and early autonomy recurred [$t(145) = 2.81, p < .05$] and there were significant associations between early

Table I. Personal Characteristics: Numbers (Percentages) or Scores (Standard Deviations) of Respondents by Sexual Initiation and Gender

Variable	Early initiators (15 or younger)		Late initiators (16 or older)		χ^2/t , total
	Males (N = 39)	Females (N = 68)	Males (N = 55)	Females (N = 79)	
Sexual style					6.04
Naive	3 (8)	6 (9)	8 (15)	16 (20)	
Unassured	6 (15)	9 (13)	9 (16)	8 (10)	
Competent	6 (15)	21 (31)	13 (24)	25 (32)	
Adventurous	23 (59)	30 (44)	23 (42)	28 (35)	
Driven	1 (3)	2 (3)	2 (4)	2 (3)	
Restraint ^a	1.81 (0.61)	1.74 (0.65)	1.79 (0.49)	1.45 (0.56)	2.38*
Autonomy timetable ^a	0.98 (0.50)	1.08 (0.46)	1.30 (0.60)	1.29 (0.43)	3.88*
Traditional gender roles ^b	2.03 (1.03)	1.50 (0.70)	2.34 (0.74)	1.73 (0.74)	2.61*
Attractiveness					1.75
Less attractive	4 (10)	9 (13)	4 (7)	11 (14)	
About as attractive	26 (67)	52 (77)	33 (60)	57 (72)	
More attractive	9 (23)	7 (10)	19 (33)	11 (14)	
Physical development					7.89**
Less or about as mature	23 (59)	52 (76)	44 (80)	70 (89)	
More mature	16 (41)	16 (24)	11 (20)	9 (11)	

^aMaximum score = 4.

^bMaximum score = 6.

* $p < .05$.

** $p < .01$.

sexual activity and use of common drugs [$t(145) = 2.30, p < .05$] and lack of restraint [$t(145) = 2.98, p < .01$]. Nonsignificant trends were apparent between early sexual initiation and greater maturity [$\chi^2_{(1)} = 3.81, p = .05$], more social activities [$\chi^2_{(2)} = 5.13, p = .08$], and less traditional attitudes to gender roles [$t(145) = 1.89, p = .06$]. Logistic regression analyses revealed no significant interactions between sex of respondent and age at initiation for any of the personal or social variables.

Logistic regression analyses were conducted to examine the relative importance of various predictors of age at initiation of sexual activity. The variables used in these multivariate analyses were those which in bivariate analyses were associated with age at initiation at a significance level of $p \leq .10$. Logistic regression analyses using a forward stepwise procedure were conducted for the whole sample and separately for young men and for young women (Table III).

For the whole sample, seven variables were used in the logistic regression analyses: perceived maturity relative to peers, time spent in social activities, use of common drugs, use of hard drugs, restraint, timetable for autonomy, and attitude to traditional gender roles. Three of these variables were found to be significant independent predictors of age at initiation. Compared to late initiators, early initiators were significantly more likely to believe that they were more mature than their peers, significantly more likely to use hard drugs, and significantly more likely to

Table II. Social Context: Numbers (Percentages) or Scores (Standard Deviations) of Respondents by Sexual Initiation and Gender

Variable	Early initiators (15 or younger)		Late initiators (16 or older)		χ^2/t , total
	Males (<i>N</i> = 39)	Females (<i>N</i> = 68)	Males (<i>N</i> = 55)	Females (<i>N</i> = 79)	
Social activities					5.62*
0–4 hr per week	15 (38)	23 (33)	22 (40)	37 (47)	
5–9 hr per week	5 (13)	18 (27)	13 (24)	24 (30)	
10+ hr per week	19 (49)	27 (40)	20 (36)	18 (23)	
Media impact					
Use of general media ^a	1.45 (0.73)	2.13 (1.04)	1.30 (0.70)	2.20 (1.06)	0.40
Use of explicit media ^a	2.08 (1.81)	0.98 (0.77)	1.78 (1.52)	0.94 (0.84)	0.57
Peer norms: girls					0.93
Less than half had sex	32 (82)	54 (79)	47 (85)	67 (85)	
More than half had sex	7 (18)	14 (21)	8 (15)	12 (15)	
Peer norms: boys					0.24
Less than half had sex	29 (74)	47 (69)	48 (87)	51 (65)	
More than half had sex	10 (26)	21 (31)	7 (13)	28 (35)	
Drug use					
Use of common drugs ^b	1.20 (0.70)	1.28 (0.68)	1.10 (0.59)	1.03 (0.66)	2.29**
Use of uncommon drugs ^b	0.33 (0.55)	0.26 (0.36)	0.14 (0.31)	0.18 (0.36)	2.51***

^aMaximum score = 3.

^bMaximum score = 9.

**p* < .06.

***p* < .05.

****p* < .01.

report earlier timetables for autonomy from parents. The model correctly classified 61% of respondents as early or late initiators of sexual intercourse.

Four variables were used in the logistic regression analysis for young men: perceived maturity relative to peers, use of hard drugs, timetable for autonomy,

Table III. Summary Results of Logistic Regression Analysis Predicting Early Initiators and Late Initiators

Variable	Odds ratio	95% CI ^a
Full sample		
More mature than peers	2.78	1.43–5.41
Use hard drugs	2.40	1.16–4.93
Autonomy from parents	0.34	0.19–0.61
Young men only		
More mature than peers	3.27	1.22–8.79
Use hard drugs	3.40	1.05–11.03
Autonomy from parents	0.36	0.18–0.74
Young women only		
More mature than peers	2.86	1.09–7.49
Lower levels of restraint	2.13	1.17–3.87
Autonomy from parents	0.33	0.14–0.75

^aConfidence interval.

and attitude to traditional gender roles. Three of these variables were found to be significant independent predictors of age at initiation. Compared to late initiators, early initiators were significantly more likely to believe that they were more mature than their peers, to use hard drugs, and to report earlier timetables for autonomy from parents. The model correctly classified 68% of young men as early or late initiators of sexual intercourse.

Six variables were used in the logistic regression analysis for young women: perceived maturity relative to peers, time spent in social activities, use of common drugs, restraint, timetable for autonomy, and attitude to traditional gender roles. Three of these variables were found to be significant independent predictors of age at initiation. Compared to late initiators, early initiators were significantly more likely to believe that they were more mature than their peers, to report lower levels of restraint, and to report earlier timetables for autonomy from parents. The model correctly classified 62% of young women as early or late initiators of sexual intercourse.

DISCUSSION

Among these young sexually active teenagers there was a substantial number (almost half) who had commenced sexual activity by age 15, males and females equally so. This confirms other research which shows that a major change in young people's sexual behaviors following the so-called "sexual revolution" of the 1960s is that young girls are becoming initiated into sexual activity in greater numbers than previously, while the number of sexually active young boys is not increasing at the same rate.

Our data support earlier findings of an association between early initiation of sexual intercourse and use of drugs, including alcohol, cigarettes, and illicit drugs. There is also support for the earlier finding that young people with less traditional attitudes to gender roles are likely to incorporate sexual activity in their behavioral repertoire. Not surprisingly, early physical maturity, for both males and females, was also associated with early sexual initiation.

Equally interesting is the association between early sexual initiation and both lack of restraint and early expectations for autonomy. It appears that our second interpretation of early autonomy-seeking is the correct one for this group of young people and our expectation that this "pseudoautonomy" will be related to engaging in other aspects of "adult" behavior, in this case early sexual intercourse, has been confirmed.

On the other hand, several of our measures failed to differentiate between early and late initiators. The relationships found in earlier studies between sexual style, an important construct linking together sexual self-perceptions, and sexual practices, specifically virginity status and sexual risk-taking (Buzwell and Rosenthal, 1996; Smith and Rosenthal, 1997), were not apparent here. Thus, while it can be argued that sexual style is related to whether or not one is a virgin and to the safety

or otherwise of one's sexual activity, it does not influence the timing of first sexual experience. Alternatively, it is possible that the present sample, because of its relatively narrow age range, does not allow for sufficient variability in age of initiation for relationships with sexual style to be demonstrated. There is a hint of links in the somewhat larger numbers of late initiators among the *sexually naive* and early initiators among the *sexually adventurous*. Clearly, there is a need for further exploration of the possible role of sexual style in initiation of sexual activity with young people from a wider age range.

The nonsignificant trend for a relationship between early sexual initiation and social activities is worthy of comment. Earlier research identified relationships between age at sexual initiation and "risky" leisure activities, often defined as delinquent behavior, or drug use, or "socioromantic" activities such as going to discos or parties or going out with an opposite-sex friend (Meschke and Silbereisen, 1997). In the present study, social activities were defined as "ethnic clubs, sporting groups, church groups, and other community groups or regular social meetings with friends" and early initiators were more likely to spend more time in social activities of this sort than their later-initiating peers. It may be that these activities do open up the possibility of meeting potential sexual partners.

The absence of a relationship between use of explicit media and early initiation of sexual activity is provocative. Much has been made of the potential for explicit media to influence young people's behavior as well as their beliefs. Although it would not be possible to assume a causal relationship from this study, even if an association had been found, the findings suggest that we need to be careful in the inferences we draw from studies of media influence. In this sample of sexually active young teenagers, use of explicit media may have been an influence in determining the *occurrence* of sexual activity, although not the timing of the first experience of sexual intercourse.

In examining the relationships between sexual initiation and other personal and social variables, it is noteworthy that relatively few effects were restricted to one sex, and there were none in which sex of respondent interacted with age at initiation. Moreover, the most powerful predictors of early sexual initiation in our model formed a cohesive set. Overall (and among the male sample), three variables, perceptions of greater physical maturity, greater use of uncommon (mostly illicit) drugs, and expectations of earlier autonomy, significantly differentiated between early and later initiators. This group of factors does tend to confirm the view that early experience of sexual intercourse is tied up with behaviors defined as problematic and a press toward "adult" behaviors. For girls, this pattern was even clearer, with use of uncommon drugs being replaced as a significant contributor of early sexual experience by relative lack of restraint. Given the restricted age range of our sample, it is noteworthy that we were able to identify a set of variables which contribute substantially to age at first sexual intercourse. We are led to conclude that the desire to achieve the transition to adulthood at an earlier age than their

peers (in this case, manifested by expectations of early autonomy and perceptions of greater physical maturity) constitutes a powerful incentive for young people to become sexually active.

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