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Correlates of Increased Sexual Satisfaction

Elina Haavio-Mannila, Ph.D.,^{1,3} and Osmo Kontula, Ph.D.²

Comparisons of nationally representative survey data of the population ages 18–54 years in 1971 (N = 2252) and 1992 (N = 1718) from Finland show that sexual satisfaction has greatly increased particularly among women. Some predictors of sexual satisfaction of men and women are examined on the basis of the 1992 survey data on people ages 18–74 years (N = 2250). Correlations between social background factors, sexual ideas and assertiveness, optional relationships, sexual practices, orgasm, and satisfaction with sexual intercourse were calculated. To control the simultaneous effect of the variables explaining satisfaction, path analyses were conducted. Results show that young age, a sexually unreserved and a nonreligious childhood home, early start of sexual life, high education, sexual assertiveness, considering sexuality important in life, reciprocal feeling of love, use of sex materials, frequent intercourse, many-sided (versatile) sexual techniques, and frequent orgasm correlate with finding sexual intercourse pleasurable. There were some gender differences in the connections between the independent factors and satisfaction with coitus. The importance of sexuality in life, love, and the use of sexual materials were connected directly to physical sexual satisfaction among men but only indirectly among women. For women, but not for men, young age and early start of sexual life correlated with enjoyment of intercourse. The greater sexual dissatisfaction of women compared to men, which still prevails, may be due to their late start of sexual life, conservative sexual attitudes, unimportance of sexuality in life, lack of sexual assertiveness, and use of restricted sexual techniques. The emancipation of women may change these ideas and practices of women. This might lessen the gender gap in physical sexual satisfaction.

KEY WORDS: sexual satisfaction; orgasm; sexual attitudes; love; gender differences.

¹Department of Sociology, University of Helsinki, Box 18, FIN-00014, Finland.

²Department of Public Health, University of Helsinki, Finland.

³To whom correspondence should be addressed.

INTRODUCTION

According to Davidson *et al.* (1995), "a sense of enjoyment or satisfaction with one's sexual life is a highly personal sentiment greatly related to an individual's past sexual experiences, current expectations, and future aspirations" (p. 237). Sexual satisfaction has been shown to be related to the characteristics and behavior of the partner, emotions, sexual behaviors as well as to social background factors. In a review of studies conducted in the U.S. (Sprecher and McKinney, 1993), sexual satisfaction was found to be associated with young age and middle class background. Sexual behaviors connected to sexual satisfaction included frequent intercourse, oral-genital sex, experimental lovemaking, and orgasm.

Laumann *et al.* (1994) found there was more emotional satisfaction and physical pleasure in a monogamous relationship than in sexual intercourse with a primary partner while also having a sexual relation with one or more other partners within the past 12 months. This may be due to having learned what excites and pleases that partner. In a sample of 868 nurses located in 15 states women with many partners expressed the least psychological (not physiological) sexual satisfaction. One explanation may be that women with one partner indicate that their partners often delay orgasm until after their own first orgasm. (Davidson and Darling, 1988).

Analyses of the behavioral and attitudinal variables have indicated that college-age women ($N = 275$) in committed relationships, who use effective contraceptive methods, who are more consistently orgasmic, and who report higher frequencies of sexual intercourse tend to report higher levels of sexual satisfaction (Pinney *et al.*, 1987). However, Greeley (1991) found that frequency of sex did not affect overall relationship quality once sexual satisfaction was controlled.

Effective communication has been found to be important to the sexual relationship. Communication can enhance sexual arousal, is necessary for the initiation and refusal of sex, and is related to sexual satisfaction (Sprecher and McKinney, 1993, p. 124). Couples who maintain a high quality of communication about sex are more likely to have a satisfying sexual relationship. Feeling incapable of communicating sexual desires has been found to be a common attribute related to anorgasmia (Huberle, 1991). The belief that such feelings may be caused by a lack of self-esteem were supported by Huberle's findings that showed that sexually assertive women reported higher frequencies of sexual activity and orgasm, rated themselves as having greater subjective sexual desire, and reported greater marital and sexual satisfaction.

Orgasm is only one facet of the total sexual experience, and many factors influence both orgasmic capacity and sexual satisfaction (Morokoff,

1978). Orgasm nevertheless remains the most easily quantifiable index of sexual satisfaction. American studies indicate that 4–10% of adult women have never experienced orgasm. Inhibited female orgasm is typically cited as the most common sexual difficulty presented to practitioners in clinic settings. Women have been found to be orgasmic only 40–80% of the time, regardless of the stimulation method. (cf. Alzate 1985; Darling and Davidson, 1986; Darling *et al.*, 1991; Spector and Carey, 1990.)

In this study, *emotional* sexual satisfaction is operationalized as the “happiness of the steady relationship.” *Physical* sexual satisfaction was in our questionnaire defined as “pleasurableness of sexual intercourse.” Finding sexual intercourse pleasurable was chosen as the main dependent variable because we had found that it varies by course of time and gender (Kontula and Haavio-Mannila, 1995a). Physical sexual satisfaction is also influenced by other social factors and is a relevant object for a sociological study.

On the basis of earlier studies we assume that pleasurableness of sexual intercourse is influenced by social background, sexual ideas, emotional relations between the partners, sexual practices, and orgasm. We measure the assumed determinants of sexual satisfaction by using the following predictors (see Appendix for details):

Social Background. Age of respondents, sexual and religious atmosphere in childhood homes, educational resources, and the timing of first sexual experiences.

Sexual Ideas. Importance of sexual life among different spheres of life and sexual assertiveness, i.e., the subjective perception of being sexually skillful, active, and attractive.

Emotional Ties Between the Partners. That there is a person who really loves the respondent and that he or she really loves some woman or man.

Sexual Techniques and Practices. Use of sexual materials, frequency of intercourse and the application of many-sided techniques in sexual encounters. The last-mentioned variable includes having used several positions or woman on the top position in the latest intercourse, having engaged in oral and anal sex, and stimulating partner's genitals by hand.

Orgasm. How often the intercourse has led to the ending of sexual tension and orgasm.

Changes in satisfaction with sexual intercourse over more than 20 years are analyzed by comparing results of two national representative surveys of 18- to 54-year-old Finnish people conducted in 1971 and 1992. On the basis of the latter study (Kontula, and Haavio-Mannila, 1995a), predictors of physical sexual satisfaction will be examined separately for men and women ages 18 to 74 years.

METHOD

In 1992, adult sexual behavior was studied in Finland after an interval of 20 years. As one of the most important objectives of the survey was to make comparisons with the 1971 survey (Sievers *et al.*, 1974), the method used was necessarily as close as possible to the one used in 1971. Thus, a two-stage face-to-face interview/self-administered questionnaire survey, mainly implemented in the home of the respondent, was chosen.

Two questionnaires were used, one filled out by predominantly female interviewers and the other, by respondents. The interviewer did not see the answers. Questionnaires were enclosed in envelopes for mailing to the research team. One third of questions were the same as asked in the 1971 study. A large number of new questions on sexual life and new topics never before studied in Finland were added. There were 207 questions and 404 variables (Kontula and Haavio-Mannila, 1995a).

At the end of 1991 and the beginning of 1992, survey data were collected by face-to-face interviews among a population ages 18 to 74 years. The sample was drawn at random from the central population register and was nationally representative of the population in the age bracket 18–74. The sample was limited in the same manner as that of the 1971 study. The upper age limit of 74 was chosen because those in the age cohort 54 or younger were now 74 or younger.

Data collection was conducted by 164 interviewers of Statistics Finland. In 1971, interviews were done by the personnel of the health services (public health nurses and midwives). The average time spent on the interview and on filling out the questionnaire was 78 min, slightly less than in 1971.

In 1992, there were 2250 responses to the survey, and the response rate was 76%. A total of 1146 women and 1104 men participated. Response rates were 78% for women and 74% for men. The most responsive group were those less than 25 years (83%) and the least responsive (72%) those ages 35–44 years. Young and elderly people responded better than expected (of those more than 65 years 77% participated in the study). In 1971, 2188 persons ages 18 to 54 years responded to the survey, and the response rate was as high as 91%.

Geographically, the best response was obtained in the provinces of Pohjois-Karjala (88%) and Mikkeli (84%) in Eastern Finland, which are relatively rural, nonindustrialized areas. Uusimaa, a highly developed area in Southern Finland, was the worst (70%). On the basis of marital status, widows and widowers were the most responsive (83%), while divorcees (72%) were the least. Unmarried people were slightly more responsive.

The decrease in response rate (i.e., the increase in the share of refusals) from the 1971 study to the 1992 study was due to many factors: people's increased reluctance to respond to surveys; the opportunity of the health care personnel, in 1971, to use their authority (also uniform) in persuading the people; the people's possibility to refuse meeting in the telephone contact in 1992 (in 1971 the people were met without any previous telephone contact); and the open announcement of the research subject (sexual issues), in 1992, in the first letter of contact (contrary to the 1971 survey). The response rate in 1992 did not deviate from the surveys by Statistics Finland of the same time concerning the spending of leisure time and elections.

The decline of the response rate did not cause any systematic self-selection of respondents. Responses concerning first sexual experiences were in agreement in the different age cohorts in 1992 and 1971. For example, the 50-year-olds recalled and reported their first sexual experiences in 1992 in the same way as the 30-year-olds in 1971. This could be explained by similar biases in these surveys. However, this finding may be due to other factors.

Data were analyzed by calculating percentages and means and testing the statistical significance of differences between groups. To control the simultaneous effect of the independent variables used in predicting sexual satisfaction, path analyses based on stepwise regression analyses were conducted. As many weak links between the variables are not included in the path models, original correlation matrices are presented from which the reader can evaluate results and interpretations.

RESULTS

Increase in Sexual Satisfaction in the Last Twenty Years

Perhaps the most positive result of the recent Finnish sex survey is the observation (Table I) that people ages 18 to 54 years (in order to compare with the 1971 data, the older people interviewed in 1992 are omitted from Tables I and II) nowadays report greater satisfaction was reported with their sexual life than 20 years ago. In 1992, sexual intercourse was considered more pleasurable, steady relationship was experienced as happier, and sexual life as a whole was estimated to be more satisfying than was reported in 1971. These results hold true even when the influence of age, education, marital status, type of community, and the importance of religion to one's life were controlled.

Table I. Differences Between Years 1971 and 1992 in Sexual Satisfaction of People Ages 18–54 in Finland^{a,b}

Indicator of sexual satisfaction (range 1–5)	1971		1992		Difference between years of study			R^2
	\bar{x}	\bar{x}	\bar{x}	\bar{x}	η	β		
Considers intercourse pleasurable	4.19	4.34	4.34	4.34	.12	.12 ^c	.073	
Last intercourse was pleasurable	4.26	4.33	4.33	4.33	.05	.07 ^c	.041	
The steady relationship is happy	4.01	4.21	4.21	4.21	.14	.13 ^c	.056	
Sexual life as a whole is satisfying	4.00	4.07	4.07	4.07	.04	.07 ^c	.017	
No. of respondents ^c	2152	1718	1718	1718				

^aMeans, etas and betas (controlling for the influence of age, education, marital status, type of community and importance of religion in one's life), and the share of variance explained (R^2) in analysis of variance.

^bIn 1971, twice as many women as men in the ages 18–44 were interviewed. The numbers in Table I have been weighted by gender. In Table II, the actual number of women interviewed is presented.

^c $p < 0.001$.

Table II. Gender Differences in Sexual Satisfaction of People Ages 18-54 in Finland in 1971 and 1992^a

Indicator of sexual satisfaction	Gender difference				R ²
	Men \bar{x}	Women \bar{x}	η	β	
Considers intercourse pleasurable					
1971	4.37	4.00	.26	.27 ^b	.095
1992	4.40	4.28	.11	.12 ^b	.031
Last intercourse was unpleasant					
1971	4.38	4.08	.14	.16 ^b	.060
1992	4.35	4.31	.03	.04	.030
The steady relationship is happy					
1971	4.00	4.02	.02	.01	.068
1992	4.17	4.24	.05	.03	
Sexual life as a whole is satisfying					
1971	3.99	4.01	.01	.01	.023
1992	4.07	4.07	.00	.02	.014
No of respondents					
1971	744	1408			
1992	878	840			

^aThe influence of age, education, marital status, type of community and importance of religion in one's life has been controlled. Means, etas and betas, and the share of variance explained (R²) in the analysis of variance.

^bp < 0.001.

From the point of view of gender equality, in 1992 women considered sexual intercourse more pleasurable than in 1971 and nearly as pleasurable as men did (Table II, Fig. 1). Men still said they enjoyed intercourse in general more than women did but the evaluation of the most recent intercourse was the same for both genders. The gender gap in experiencing sexual intercourse as pleasurable has thus decreased significantly.

Emotional satisfaction, i.e., the happiness of the present steady relationship, has also increased in the last 20 years (Table I, Fig. 2). Especially the younger (18–34 years old) women now report more happiness. The gender difference in the happiness of a present steady relationship is not statistically significant: Men and women are as happy. Of subjects ages 18–74 years, of men 29% and of women 33% were very happy and only 2% were unhappy in 1992, the rest being inbetween.

The following results are based on the 1992 sample of people 18–74 years old: 42% of the men and 32% of the women thought that intercourse was mostly very pleasurable, and 43 and 39%, respectively, reported that the latest sexual intercourse was a very pleasurable experience. Only 2–3% reported that intercourse is unpleasant. For the rest, intercourse experiences were seen as quite pleasurable or neither pleasurable nor unpleasant. The gender differences in physical sexual satisfaction are statistically significant ($p < 0.001$).

Although women found their latest intercourse pleasurable as often as men did, a difference still exists in the experience of first intercourse: 36% of the men and 10% of the women considered their first intercourse

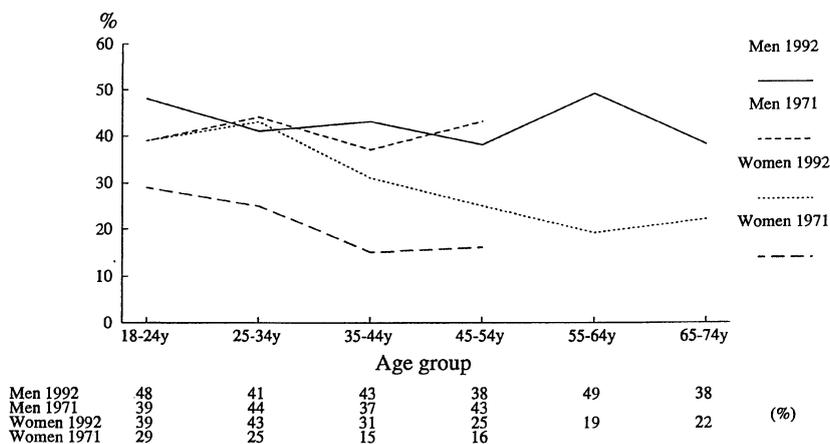


Fig. 1. Experience intercourse mostly as very pleasant (1971–1992).

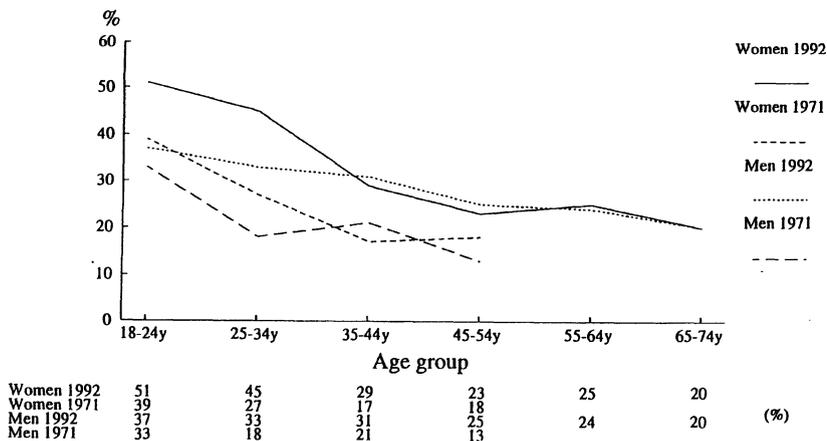


Fig. 2. Are very happy in their present steady relationship (1971-1992).

very pleasurable and 5 and 33%, respectively, unpleasant. The gender difference is significant ($p < 0.001$). General sexual satisfaction was the same for both sexes: 26% of men and 29% of women found their sexual life as a whole very satisfying, 58 and 52%, respectively, quite satisfying, 11 and 13% neither satisfying nor unsatisfying, and 4 and 6% unsatisfying.

Emotional and physical sexual satisfaction are related. The correlation coefficient (r) between considering one's relationship to one's present steady partner happy and finding sexual intercourse pleasurable is for men .25 ($p < 0.001$) and for women .29 ($p < 0.001$). Happiness in steady relationship and satisfaction with sexual intercourse influence the evaluation of one's sexual life as a whole to the same extent. The correlation coefficient between overall sexual satisfaction and satisfaction with sexual intercourse was for men .40 ($p < 0.001$) and for women .47 ($p < 0.001$) and that between overall sexual satisfaction and happiness of the steady relationship was, respectively, for men .36 ($p < 0.000$) and for women .44 ($p < 0.001$). Emotional and physical sexual satisfaction are thus equally important predictors of overall sexual satisfaction. Even though we concentrate on changes and predictors of physical sexual satisfaction, we do not devalue the emotional aspects of sexuality.

Gender Differences in the Assumed Predictors of Sexual Satisfaction

Before the causal analysis, we compared men and women with regard to the factors we assumed to be connected with sexual satisfaction. We examined gender differences in social background, sexual ideas, emotional

Table III. Means and Statistical Significance of Gender Differences in Assumed Determinants of Sexual Satisfaction in 1992

Assumed determinants of sexual satisfaction	Men \bar{x}	Women \bar{x}
Social background		
Age, years	41.3	43.1 ^a
Sexually unreserved home (range 1-5)	2.4	2.4
Nonreligious home (range 1-5)	3.8 ^b	3.5
Age at starting of sexual life, years	16.9	18.0 ^b
High (at least 15 years of) education (%)	16.9	17.4
Sexual ideas		
Liberal sex attitudes (6-item scale, range 6-30)	21.2 ^b	19.7
Sexually assertive (3 item scale, range 3-15)	10.0 ^b	9.2
Considers sex important in life (range 1-5)	4.1 ^b	3.6
Emotional relations between partners		
Feels and gets love (2-item scale, range 2-6)	5.1	5.0
Sexual techniques and practices		
Use of sex materials (5-item scale, range 5-20)	8.4 ^b	5.6
Frequent sexual intercourse (2-item scale, range 2-16)	9.3 ^b	8.2
Many-sided sexual techniques (5-item scale, range 5-23)	14.7 ^b	13.3
Orgasm and satisfaction		
Orgasm (2-item scale, range 2-9)	8.3 ^b	6.5
Sexual satisfaction (2-item scale, range 2-10)	8.8 ^b	8.3
No. of respondents	1103	1144

^a*p* < 0.01.^b*p* < 0.001.

relations, sexual practices, and orgasm. In this way we attain a better comprehension of the gender-specific aspects of sexual satisfaction. If women were found to rank low on some predictors of sexual satisfaction, the result would give us some clues for understanding why they do not find sexual intercourse as pleasurable as men do.

All gender differences cited in the following paragraphs are statistically significant. Table III reveals that women in our sample on average are older (43 years) than men (41 years). There is no significant gender difference in the educational level of the interviewees. Neither did the sexual atmosphere in the childhood home differ by gender. Nevertheless, the men recall their home as less religious than the women do. The sexual histories of the women differ from those of the men. The women started their sexual life (kissing, dating, sexual intercourse, and achieving orgasm in intercourse) at a later age than did the men. Thus the social background of the women is, according to their subjective evaluation, somewhat more

traditional and their sexual initiation had taken place at a later age than is the case among the men.

Sexual ideas, i.e., attitudes and sexual assertiveness, differ by gender. Women are more conservative in their sexual attitudes, rate sexual life less important among the 13 different life spheres mentioned in the questionnaire, and are sexually less assertive. Thus sexuality seems to have a less important role in the lives of women.

Sexual techniques and practices reported by men and women vary considerably. Men use more sexual materials (movies, videos, TV programs, magazines, books and calendars), engage more often in sexual intercourse, use more techniques, for example, nontraditional positions in intercourse, anal sex, oral sex, and stimulation by hand.

Finnish women report relatively high rates of orgasm during intercourse, but they still have significantly lower rates than men (Darling *et al.* 1996). Fifty-three percent of men but only 6% of women reported "always" having had an orgasm during sexual intercourse, and 44 vs. 48%, respectively, have achieved it "almost always or usually." Of the Finnish women, 4% had never experienced an orgasm during sexual intercourse (of the men, 0.3%). During the most recent intercourse as many as 92% of the men but only 56% of the women reported that they had achieved an orgasm. Women had their first orgasm at a considerably later age (on the average 21 years) than men (18 years) even though both genders had started sexual intercourse at the same age (18 years).

Pathways to Physical Sexual Satisfaction

To study the factors related to physical sexual satisfaction (finding intercourse pleasurable) we conducted path analyses using stepwise regression analysis. In the path models (Figs. 3 and 4) explaining men's and women's physical sexual satisfaction, 13 independent variables are included. They are defined in the Appendix. Correlations between the variables are shown in Table IV so that one can see the connections on which the multivariate analysis is based.

Physical sexual satisfaction of women is more predicted by social factors examined in our study: The path models explain only 21% of men's but as much as 46% of women's satisfaction with sexual intercourse. In most cases, men's and women's sexual satisfaction is explained by the same factors. Satisfaction with sexual intercourse is *directly* connected to young age (women only), considering sexuality important in life (men only), sexual assertiveness, reciprocal love (men only), using sex materials (men only), frequent sexual intercourse, many techniques in sexual encounters, and or-

Table IV. Correlations Between Variables Explaining Sexual Satisfaction

	1	2	3	4	5	6	7	8	9	10	11	12	13
Men													
1 Young age	—												
2 Unreserved childhood home	.33 ^b	—											
3 Nonreligious childhood home	.10	.03	—										
4 Early start of sexual life	.29 ^b	.19 ^b	.27 ^b	—									
5 High education	.08	.01	-.03	-.06	—								
6 Liberal sexual attitudes	.13 ^b	.06	.66 ^b	.25 ^b	.06	—							
7 Sex important	.12 ^a	.10	.12 ^a	.14 ^b	-.03	.12 ^a	—						
8 Sexual materials	.36 ^b	.09	.23 ^b	.23 ^b	-.00	.26 ^b	.15 ^b	—					
9 Sexual self-esteem	.22 ^a	.12 ^a	.07	.22 ^b	-.04	.09	.38 ^b	.21 ^b	—				
10 Reciprocal love	.05	.06	.11 ^a	.07	.08	.10	.19 ^b	.01	.20 ^b	—			
11 Frequent intercourse	.04	.05	.00	.16 ^b	.00	-.01	.33 ^b	.08	.33 ^b	.53 ^b	—		
12 Many-sided sexual techniques	.46 ^b	.11 ^a	.18 ^b	.36 ^b	.09	.26 ^b	.32 ^b	.42 ^b	.32 ^b	.19 ^b	.36 ^b	—	
13 Orgasm	.07	.04	.00	.15 ^b	-.05	-.01	.07	.09	.17 ^b	.12 ^a	.18 ^b	.12 ^a	—
14 Sexual satisfaction	.08	.11 ^a	.04	.09	.01	-.06	.28 ^b	-.01	.32 ^b	.29 ^b	.34 ^b	.22 ^b	.22 ^b
Women													
1 Young age	—												
2 Unreserved childhood home	.35 ^b	—											
3 Nonreligious childhood home	.26 ^b	.09	—										
4 Early start of sexual life	.51 ^b	.25 ^b	.25 ^b	—									
5 High education	.10 ^a	.01	.04	-.08	—								
6 Liberal sexual attitudes	.27 ^b	.13 ^b	.64 ^b	.22 ^b	.15 ^b	—							
7 Sex important	.38 ^b	.10 ^a	.18 ^b	.25 ^b	.04	.20 ^b	—						
8 Sexual materials	.29 ^b	.09	.14 ^b	.17 ^b	.08	.26 ^b	.21 ^b	—					
9 Sexual self-esteem	.32 ^b	.24 ^b	.08	.22 ^b	.14 ^b	.14 ^b	.41 ^b	.43 ^b	—				
10 Reciprocal love	.28 ^b	.10 ^a	.06	.16 ^b	.09	.04	.23 ^b	.14 ^b	.24 ^b	—			
11 Frequent intercourse	.35 ^b	.05	.03	.22 ^b	.04	.05	.50 ^b	.23 ^b	.29 ^b	.58 ^b	—		
12 Many-sided sexual techniques	.58 ^b	.19 ^b	.20 ^b	.34 ^b	.13 ^a	.20 ^b	.40 ^b	.42 ^b	.30 ^b	.41 ^b	.17 ^b	—	
13 Orgasm	.15 ^b	.09	.04	.18 ^b	-.07	.02	.25 ^b	.07	.24 ^b	.18 ^b	.21 ^b	.36 ^b	—
14 Sexual satisfaction	.34 ^b	.16 ^b	.07	.20 ^b	.07	.11 ^a	.40 ^b	.15 ^b	.40 ^b	.26 ^b	.33 ^b	.49 ^b	.36 ^b

^a*p* < 0.01.^b*p* < 0.001

gasm. Several social factors included in the path models have an *indirect* influence on sexual satisfaction when the impact of the other variables is controlled. These include nonreligious and sexually unreserved home in childhood, early start of sex life, and liberal sex attitudes. Nevertheless, these social factors are important to sexual satisfaction because they are related to variables that directly increase it.

The indirect influence of some variables on physical sexual satisfaction can be explained as follows. For men, age has no direct connection to sexual satisfaction. Young age, nevertheless, indirectly predicts men's sexual satisfaction as young men are sexually assertive and use many sexual techniques that increase sexual satisfaction. For women, considering sex important in life does not directly predict sexual satisfaction. However, women reporting that sex is important frequently engage in intercourse and use many techniques in sexual encounters, factors that contribute to physical sexual satisfaction. And even though love does not have a direct impact on women's sexual satisfaction, women who love and are loved engage frequently in sexual intercourse and often achieve orgasm in intercourse. These factors increase sexual satisfaction. Women's use of sex materials contributes to their sexual satisfaction through many sexual techniques which predict finding sexual intercourse pleasurable.

An unexpected result is that, for women, high education is associated with lack of orgasm. In the highest educational category (15+ years of education) only 33%, in the middle group (10–14 years) as many as 75%, and in the lowest category (at most 9 years of school) 62% of women reported orgasm in intercourse at least most of the time. Even though there is no statistically significant correlation between education and achieving orgasm (Table IV), the regression coefficient is $-.07$ ($p < 0.05$) when one uses the dichotomy 15+ vs. fewer years of education (Fig. 4).

In the Introduction we discussed the role of effective communication in increasing sexual satisfaction. Finding it easy to discuss sexual matters with one's partner correlates with sexual satisfaction among men ($r = .28$, $p < 0.001$). For women the correlation is even stronger ($r = .40$, $p < 0.001$). Nevertheless, the impact of this variable, which correlates with many other predictors of sexual satisfaction, disappeared when we controlled for other factors. Thus, this variable was excluded from path analyses.

We also discussed the sexual satisfaction of people with one or more sexual partners. No statistically significant results were found between finding sexual intercourse pleasurable and having one or more sexual partners during the last year (Table V). Neither did living together with a steady sexual partner (being married or cohabiting) predict sexual satisfaction. However, there was a significant ($p < 0.025$) interaction in predicting sexual

Table V. Physical Sexual Dissatisfaction According to Type of Partner Relationship and Number of Sexual Partners During Last Year and Gender^a

Type of partner relationship	No. of sexual partners during last year	Sexual dissatisfaction ^b			
		Men		Women	
		\bar{x}	<i>n</i>	\bar{x}	<i>n</i>
Not married nor cohabiting	1	3.39	118	3.55	121
	≥2	3.21	115	3.32	88
Married or cohabiting	1	3.16	561	3.52	622
	≥2	3.37	119	3.50	46

^aScale means (range 2-10). The higher the mean, the lower the satisfaction.

^bStatistical significance of the gender difference: $p < 0.0001$, and of the interaction between type of relationship and number of partners: $p < 0.025$.

satisfaction between being married or cohabiting and having had more than one sexual partner during the last year. The sexual satisfaction of nonmarried noncohabiting people with one partner was lower than that of people with several partners. Among the married or cohabiting men there was a tendency for men with one partner to enjoy intercourse more than men with several partners. The Finnish results thus support the findings by Lauermann *et al.* (1994) and Davidson and Darling (1988): Monogamous men enjoy sexual intercourse more than men with several partners.

CONCLUSION

The results of the two Finnish nationally representative sex surveys show an improvement in satisfaction with sexual life between 1971 and 1992. The growth of sexual satisfaction applies to women in particular. Women of today find their steady relationships as happy and are just as satisfied with their sexual life as a whole as men. However, women still find sexual intercourse less pleasurable than men do.

Few Finns are dissatisfied with their sexual life as a whole. One wonders if the low proportion of people reporting emotional and physical sexual dissatisfaction indicates the existence of an unhappiness barrier (Roos, 1988, calls it "happiness barrier") beyond which it is not appropriate to go when one participates in a survey, even when the answers are written by the respondent and not shown to the interviewer. It is not easy to reveal unhappiness and dissatisfaction in sexual life, to admit that one has failed in this central area. In the 161 sexual autobiographies collected for the

Finnish sex research project FINSEX, there are many stories of sexual failures and frustrations (Kontula and Haavio-Mannila, 1995b; Haavio-Mannila and Roos, 1995). This may be partly due to the self-selection of people who write autobiographies even though they demographically closely resemble the general population. But it is also possible that it is easier to express negative feelings and experiences when writing one's sexual history than when answering emotionally neutral survey questions. An autobiography can be compared to a diary, into which one pours the misery of the dark moments in order to get relief.

Sexual life is now less connected with reproduction and the institution of marriage than earlier; it is more plastic and based on "pure" relationships (Giddens, 1991, 1992). Our analysis of the Finnish survey data shows that overall sexual satisfaction is associated to the same extent with both physical and emotional sexual satisfaction. Satisfaction with "sublime love" and "bestial sex" (cf. Luhmann, 1984) belong together even though the acceptance of sex without love has increased in the last 20 years (Kontula and Haavio-Mannila, 1995a, pp. 65-66).

According to the results of our survey, many social factors are connected to sexual satisfaction. Young age, sexually unreserved and nonreligious childhood home, early start of sexual life, high education, liberal sexual attitudes, sexual assertiveness, high importance given to sexuality in life, feeling of love, use of sex materials, frequent sexual intercourse, versatile sexual techniques, and frequent orgasm are associated with satisfaction of sexual life. Importance of sexuality in life, love, and use of sexual materials are directly connected to sexual satisfaction among men but only indirectly among women. Young women who are sexually assertive, use many sexual techniques, frequently engage in sexual intercourse, and often achieve orgasm in intercourse are sexually as satisfied as men with similar characteristics.

Women used to be viewed as the traditional guardians of religion and morality in the family and community. The public has become more secular and straightforward in their treatment of women, sexuality, and other bodily pleasures (Davidson *et al.*, 1995; Kontula and Kosonen, 1996). This enhances the sexual life of women. Our examination of gender differences in the predictors of sexual satisfaction makes us conclude that the sexual dissatisfaction of women is, at least to some extent, due to their late start of sexual life, conservative sexual attitudes, low importance of sexuality in life, lack of sexual assertiveness, and not using versatile sexual techniques. The emancipation of women probably will make them sexually less inhibited and change their ideas and practices. This will lessen the gender gap in physical sexual satisfaction.

APPENDIX

Definitions of Variables in the Path Analyses (Figs. 3 and 4)

The questionnaire has been published in *Sexual Pleasures—Enhancement of Sexual Life in Finland 1972–1992* (Kontula and Haavio-Mannila 1995a, pp. 239–287). A detailed version of the definition of the variables is available upon request from the authors. It includes response alternatives. Ranges of the sum scales are shown in Table III.

Sexually Unreserved Home. What was your childhood home like? Sexual matters were kept secret—Unreserved about sexual matters.

Nonreligious Home. What was your childhood home like? Religious—Nonreligious.

Early Start of Sex Life. How old were you when you:

Kissed for the first time?

Started going steady for the first time?

Had sexual intercourse for the first time?

The first time had an orgasm during sexual intercourse?

The reliability (Cronbach's alpha) of the sum scale is .76.

Sexual Assertiveness. What is your opinion of the following statements concerning your sexual life and your sexual capacity?

I have rather great sexual skills.

I am sexually active.

I am sexually attractive.

The reliability of the sum scale is .80.

High education. What is the total amount of years you have gone to school or college or some other educational institution (including both basic education and full-time study in addition to basic education)? People having gone to school for 15 or more years were classified as having high education.

Love. Right now, is there some man or woman that you really love? Is there some man or woman who really loves you? The correlation coefficient is .74.

Liberal Sex Attitudes. Sexual attitudes were measured on the basis of six items. The following statements were chosen from 33 different statements referring to sexuality on the basis of a factor analysis:

It is good that there are reform-minded groups of people in society, who defend more free moral trends.

Women have every right to take the initiative when they want sexual contact with men.

Homosexual behavior among adults is the private affair of the people concerned, with which officials and the law should in no way interfere.

Completely temporary sexual relations can be happy and satisfying to both parties.

People over 16 years of age should be able to freely buy pornographic magazines from specially licensed stores.

One must be able to accept a wife's temporary infidelity.

The reliability of the sum scale is .62.

Sex Important. People value differently various parts of their life. We ask you to evaluate an importance of each of the following areas in your life. Sexual life was one of the 13 areas listed in the interview form. The others were: Work; family; your own health; enjoying life; social work; self-training, studying; close friendly relations; living standard, material well-being; religion, spiritual matters; love; high status in society; neat appearance.

Sex Materials. In the last 12 months, have you read or watched following materials, which in your opinion are sexually interesting or arousing (including so-called pornography)?

Sex movies or other sex programs on television

Sex videos

Sex magazines

Wall calendars with naked pictures

In the last year, have you read or glanced through a magazine or a book that you think could be called pornographic? The reliability of the sum scale is .71.

Frequent Intercourse. Sexual intercourse was defined as "sexual interaction in vaginal, oral or anal intercourse or stimulation by hand." Its frequency was measured by two questions:

When was the last time that you had sexual intercourse?

How often have you had sexual intercourse during the last month (30 days)?

The correlation coefficient is .81.

Manysided Techniques.

In what position did your last sexual intercourse take place?

Have you ever had anal intercourse (a man's penis entering a partner's anus)?

When have you last stimulated your partner's genitals and given (for women: him, for men: her) satisfaction without sexual intercourse? (e.g., fondling and stimulating by hand)?

In the last 5 years, how often have you had oral sex in your sexual relations, that is, fondling a man's penis or a woman's genitals by mouth?

The reliability of the sum scale is .74.

Orgasm. An ending of sexual tension into coming and an intense feeling of pleasure is called orgasm.

Have you had an orgasm during sexual intercourse?

Did you have an orgasm during your last sexual intercourse?

The correlation coefficient is .82.

Satisfaction with Intercourse.

What kind of an experience was your last sexual intercourse?

Have your intercourse mostly been very unpleasant or very pleasurable?

The correlation coefficient is .54.

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