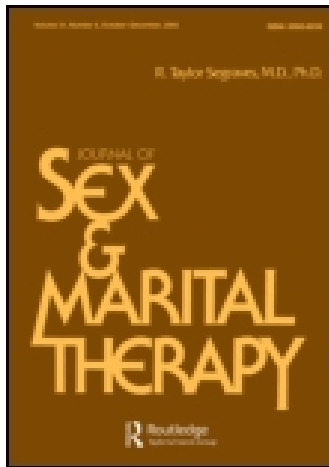


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Gender differences in sexual fantasy and behavior in a college population: A ten-year replication

Bing Hsu^a, Arthur Kling^a, Christopher Kessler^a, Kory Knapke^a, Pamela Diefenbach^a & James E. Elias^a

^a Sepulveda Veterans Affairs Medical Center, Department of Psychiatry and Biobehavioral Sciences, College of Medicine, UCLA, and the Center for Sex Research, California State University, Northridge

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Gender Differences in Sexual Fantasy and Behavior in a College Population: A Ten-Year Replication

BING HSU, ARTHUR KLING, CHRISTOPHER KESSLER,
KORY KNAPKE, PAMELA DIEFENBACH, and JAMES E. ELIAS

This report is a replication of a study conducted 10 years ago by Person et al., investigating gender differences in sexual behaviors and fantasies in a college population. We found that men continue to fantasize more than women, but the gender differences have narrowed. Recent sexual experiences of our population show a trend toward an increase in gender differences, and there is a greater correlation between sexual fantasy and experiences in women than in men. As in Person's study, we did not find that men had more aggressive/sadistic fantasies than women.

The purpose of this study was to examine the temporal stability (or lack thereof) in sexual fantasy and sexual behavior in a population of university students. Of particular interest is the issue of whether gender differences in sexual fantasy and behavior have altered over the past decade.

To accomplish this, we attempted to replicate a study conducted approximately 10 years ago by Person et al.¹ In that study, Person and her colleagues found that even though men fantasized more than women, they did not have more sexual experiences. On an item-by-item comparison, a greater gender difference could be demonstrated for fantasy than for experience. The authors anticipated this result, noting that the majority of the experience items were consensual acts between heterosexual individuals, and thus less likely to delineate a gender difference in the largely heterosexual sample. Thus, they felt that the fantasy items better reflected the "individual desires" of the subjects. In fact, they found that men had more varied sexual fantasies than women. But, even though men exhibited a greater tendency to fantasize about behavior outside

The authors are at the Psychiatry Service, Sepulveda Veterans Affairs Medical Center, Department of Psychiatry and Biobehavioral Sciences, College of Medicine, UCLA, and the Center for Sex Research, California State University, Northridge. Address reprint requests to: Bing Hsu, M.D., Veterans Affairs Outpatient Clinic, 1801 Westwind Drive, Bakersfield, CA 93301.

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TABLE 1
Summary of Demographics Information for
Male Subjects, Female Subjects, and Total Sample

	Male Subjects	Female Subjects	Total Sample
n (subjects)	54	106	160
age, mean	23.5	24.9	24.4
age, standard error	0.51	0.41	0.33
marital status-single	87%	72%	77%
-married	9%	23%	16%
-divorced	4%	6%	5%
number of partner in past year, mean	2.30	1.34	1.67
number of partners in past year, std err	.218	.119	.114

"social norms," they did not demonstrate a tendency toward the "aggressive/sadistic" fantasy. Person et al., also showed that "males fantasized about sex more and exhibited greater interest in partner variation and in the spectrum from domination to sadism."¹ Rokach,² however, concluded that data from her study "revealed no significant sex differences in the content of sexual fantasies."

Since the Person et al. study, there has been widespread attention to the AIDS epidemic and a continuing evolution in the role of women in our society. We would expect these factors to impact on contemporary sexual behavior. We used a slightly modified version of the questionnaire used by Person et al. with subjects similar in age, socioeconomic status, and sexual orientation. The present study compares sexual fantasy and sexual behavior over the intervening decade in a highly vulnerable population.

METHODS

The subjects were graduate and undergraduate students at a large urban university on the west coast. The original sample consisted of 166 individuals. Those subjects ($n = 6$) who characterized themselves as either homosexual or bisexual were excluded from the analysis. Of the remaining 160 subjects, 54 were male and 106 were female, with a mean age of 23.5 and 24.9 years, respectively. A summary of the demographic data is presented in Table 1.

Each subject was administered a sexual inventory during regular class time. Participation was entirely voluntary and the questionnaires were not uniquely marked, nor were the subjects otherwise identified. The inventory itself is derived from that used by Person et al.¹ It consists of

TABLE 2
Total Number of Items Endorsed by Male and Female
Subjects for Each of Sample (mean \pm standard deviation)

	male subjects	female subj.
fantasy, recent	18.8 \pm 8.3	14.5 \pm 8.0
fantasy, cumulative	28.6 \pm 9.6	23.6 \pm 10.1
experience, recent	25.1 \pm 9.6	22.8 \pm 11.5
exp., cumulative	36.2 \pm 10.3	33.5 \pm 11.6

a list of 67 behaviors and 55 fantasies of a sexual nature, and asks the subject to categorize his or her experience with each behavior or fantasy on a scale as follows: 1) never (having never engaged in the behavior or fantasy described by that item); 2) not in the past three months (having done so in the past, but not within the past three months); 3) less than five times in the last three months; 4) greater than five times in the last three months; and 5) greater than five times in the last four weeks. We used the same items as did Person et al., but chose to use a five-point rating scale instead of the four-point scale used by Person et al. For this study, however, we collapsed "4" and "5" to provide a comparable analysis.

The results of the survey were compiled and analyzed using Person's methodology. The subjects' responses for each questionnaire item were statistically examined on an item-by-item basis. Each item was then analyzed under two time frames. A subject who endorsed a particular fantasy or behavior at any time in the past (i.e., gave any answer which was not "never") was considered to have endorsed the item on a "cumulative" time frame. A subject who endorsed an item at any frequency within the past three months was considered to have endorsed the item on a "recent" time frame.

We then applied the Z-test for the difference between proportions³ to the percentages of items endorsed by men and women in an item-by-item comparison. We ranked the items in descending order of frequency of endorsement based on the male sample. The results of this analysis are presented in Tables 3-6. Each table is designated "recent" or "cumulative" as noted. The percentages shown under the first two columns are the percentage of the sample (male or female) who endorsed each particular item. The third and fourth columns are the results of the Z-test analysis, as applied to each item.

RESULTS

Table 2 shows the mean total number of items endorsed by our subjects in each sample as noted in Tables 3-6. Overall, there were more positive

endorsements for the experience items than for the fantasy items. However, this is to be expected as the experience section contains significantly more items (67 vs. 55). Male subjects consistently endorsed more items than did female subjects. This difference remains fairly constant across all four samples, and males endorsed a greater variety of sexual behaviors and fantasies than did the females in both cumulative and recent time frames.

Experience

Significant gender differences were found in a variety of the experience items. Of the recent experiences (Table 3), 13 of the 67 items resulted in a statistically significant gender difference at the $p < 0.05$ level. These included both relatively frequent items (e.g., "naked caressing and embracing") to quite infrequent items (e.g., "degrading sexual partner"). The items significant at the $p < .01$ level are: "kissing nude breasts," "watching pornography," "sex that lasts for hours," and "sex with a virgin." In most cases where a gender difference was found, the item was more frequently endorsed by the male subjects. The only two items significantly favored by females were "dressing in erotic garments" and "using artificial devices."

Of the cumulative experiences (Table 4), a similar number (13/67) of items showed a significant gender difference. Again, a wide range exists in the relative frequency at which these items were endorsed. Curiously, several items that had shown significant gender difference in the recent sample failed to do so in the cumulative sample. These were: "naked caressing," "genitals caressed by partner," "sex that lasts for hours," "being discovered making love," and "using artificial devices." The converse also held. Of thirteen items where gender differences reached a significant level, eight were present in both samples. Again the majority of the significant items were preferentially endorsed by males. The only item preferentially endorsed by females for the cumulative sample was "dressing in erotic garments."

Fantasy

As compared to the experience items, gender differences were detected in a larger number of the fantasy items, despite the fact that there were fewer items in the fantasy portion of the questionnaire (55 vs. 67). For the recent sample, 17 significant gender differences were detected. The most divergent were, at the $p < .001$ level: "anal intercourse," "having two or more lovers," and "sex with a virgin." For the cumulative sample, 19 were detected. In addition to the previously noted items, the following were also highly significant at the $p < .001$ level for the cumulative sample: "making love with the possibility of being discovered" and "whipping and beating partner." For the recent sample, significant gender differences were detected only in relatively common fantasies. Specifically, the least popular fantasy for which a gender difference was detected at a p

TABLE 3
Recent Sexual Experiences
College Population

Experience	Males	Females	Z-Score	<i>p</i>
Kissing nude breasts	92.5%	66.7%	3.58	< .001
Kissing on the lips	90.7%	86.8%	0.73	n.s.
Deep kissing	90.7%	84.8%	1.06	n.s.
Naked caressing and embracing	90.7%	77.4%	2.08	< .05
Kissing of sensitive areas (nongenital)	90.7%	81.1%	1.58	n.s.
Genitals caressed by partner	90.7%	77.4%	2.08	< .05
Stroking/petting partner's genitals	88.9%	80.2%	1.39	n.s.
Breast petting (nude)	88.7%	81.1%	1.22	n.s.
Walking hand in hand	87.0%	80.0%	1.10	n.s.
Watching partner undress	85.2%	72.4%	1.81	n.s.
Male petting female breasts (clothed)	81.5%	76.2%	0.76	n.s.
Erotic embrace (clothed)	81.5%	81.1%	0.05	n.s.
Sexual intercourse	79.6%	76.2%	0.49	n.s.
Male lying prone on female (clothed)	77.8%	69.5%	1.10	n.s.
Mutual undressing	75.9%	71.4%	0.61	n.s.
Oral stimulation of partner's genitals	75.9%	71.4%	0.61	n.s.
Having your genitals orally stimulated	70.4%	68.6%	0.23	n.s.
Having partner masturbate you	64.8%	55.2%	1.16	n.s.
Mutual petting of genitals to orgasm	64.8%	53.3%	1.39	n.s.
Masturbating sexual partner	64.8%	55.2%	1.16	n.s.
Intercourse/male superior	62.3%	68.9%	-0.85	n.s.
Seducing a sexual partner	57.4%	49.5%	0.94	n.s.
Masturbating alone	57.4%	46.7%	1.28	n.s.
Intercourse side by side	53.7%	54.3%	-0.07	n.s.
Mutual oral stimulation of genitals	53.7%	55.2%	-0.18	n.s.
Reading/watching pornography	51.9%	27.6%	3.02	< .01
Intercourse/female superior	50.9%	66.0%	-1.85	n.s.
Intercourse/unusual positions	50.0%	49.5%	0.06	n.s.
Intercourse/vaginal entry from rear	46.2%	60.0%	-1.67	n.s.
Intercourse sitting position	44.4%	58.1%	-1.64	n.s.
Having sex that lasts for hours	40.7%	16.2%	3.42	< .001
Using dirty language	40.7%	23.8%	2.22	< .05
Being seduced	38.9%	43.3%	-0.53	n.s.
Caressing partner's anal area	29.6%	21.9%	1.07	n.s.
Intercourse/unusual locations	29.6%	20.0%	1.36	n.s.
Performing sex acts before a mirror	20.4%	23.8%	-0.49	n.s.
Having anal area caressed	20.4%	24.8%	-0.62	n.s.
Watching a sexual partner masturbate	20.4%	20.0%	0.06	n.s.
Having partner watch you masturbate	20.4%	17.1%	0.50	n.s.
Sex with a virgin	15.1%	0.0%	4.11	< .001
Dressing with erotic garments	14.8%	29.5%	-2.04	< .05
Being discovered making love	13.0%	1.9%	2.87	< .01
Being tortured by a sexual partner	5.7%	1.9%	1.28	n.s.
Anal intercourse	5.6%	10.5%	-1.04	n.s.

TABLE 3 (continued)

Experience	Males	Females	Z-Score	p
Forcing partner to submit	3.8%	2.9%	0.34	n.s.
Whipping/beating partner	3.8%	0.0%	2.01	< .05
Sex with two or more people	3.8%	1.0%	1.23	n.s.
Being tied/bound during sex activities	3.8%	1.9%	0.71	n.s.
Degrading sexual partner	3.8%	0.0%	2.01	< .05
Torturing sexual partner	3.8%	0.0%	2.01	< .05
Being forced to submit to sexual acts	3.7%	7.6%	-0.96	n.s.
Being sexually degraded	1.9%	1.9%	-0.01	n.s.
Being whipped or beaten by partner	1.9%	0.0%	1.42	n.s.
Homosexual experience if heterosexual, heterosexual experience if homosexual	1.9%	0.0%	1.42	n.s.
Sex with a stranger	1.9%	1.0%	0.50	n.s.
Being involved in a sexual orgy	1.9%	1.0%	0.50	n.s.
Exhibiting body in public	1.9%	1.9%	-0.01	n.s.
Sex with a close relative	1.9%	0.0%	1.42	n.s.
Using artificial devices	1.9%	12.4%	-2.22	< .05
Watching others make love	0.0%	3.8%	-1.45	n.s.
Dressing in clothes of opposite sex	0.0%	2.9%	-1.25	n.s.
Seeing pictures/film of self making love	0.0%	2.9%	-1.25	n.s.
Mate swapping	0.0%	0.0%	0.00	n.s.
Watching someone make love to partner	0.0%	0.0%	0.00	n.s.
Sexual relations with animals	0.0%	0.0%	0.00	n.s.
Being a prostitute	0.0%	1.0%	-0.72	n.s.
Performing sexual acts for an audience	0.0%	0.0%	0.00	n.s.

< 0.05 significance was "forcing partner to submit," and this item was endorsed by a relatively large portion (>25%) of the male subjects (as well as >10% of the females). All other items differentially endorsed by our subjects were more "popular," as shown in Table 5. Of the 17 items where gender differences were noted, only one was preferentially endorsed by female subjects, the fantasy of "getting married."

For the cumulative sample (Table 6), there is a wider distribution of significant items. Some of the rarer items are now noted to show a significant gender difference. Similar to the recent sample, only two items were preferentially endorsed by females, "getting married" and "being rescued from danger by one who will become my lover." As was noted in the experience section, some items that had shown a gender difference in the recent sample failed to show such a difference at a level of significance in the cumulative sample.

Experience/Fantasy Correlation

We examined the relationship between sexual fantasies and experiences by correlating the incidence of sexual behaviors with the incidence of

TABLE 4
Cumulative Sexual Experiences
College Population

Experience	Males	Females	Z-Score	<i>p</i>
Kissing of sensitive areas (nongenital)	98.1%	92.5%	1.46	n.s.
Stroking/petting partner's genitals	96.3%	92.5%	0.94	n.s.
Naked caressing and embracing	96.3%	91.5%	1.13	n.s.
Breast petting (nude)	96.2%	90.6%	1.27	n.s.
Kissing nude breasts	96.2%	79.0%	2.87	< .01
Genitals caressed by partner	94.4%	91.5%	0.66	n.s.
Having your genitals orally stimulated	94.4%	88.6%	1.19	n.s.
Erotic embrace (clothed)	94.4%	93.4%	0.25	n.s.
Kissing on the lips	94.4%	96.2%	-0.52	n.s.
Deep kissing	94.4%	96.2%	-0.52	n.s.
Watching partner undress	94.4%	92.4%	0.47	n.s.
Mutual undressing	92.6%	89.5%	0.63	n.s.
Sexual intercourse	90.7%	90.5%	0.04	n.s.
Male petting female breasts (clothed)	90.7%	88.6%	0.41	n.s.
Mutual petting of genitals to orgasm	88.9%	81.9%	1.15	n.s.
Oral stimulation of partner's genitals	88.9%	88.6%	0.06	n.s.
Walking hand in hand	88.9%	96.2%	-1.80	n.s.
Intercourse/male superior	88.7%	85.4%	0.58	n.s.
Male lying prone on female (clothed)	87.0%	88.6%	-0.30	n.s.
Intercourse/female superior	86.8%	83.5%	0.55	n.s.
Having partner masturbate you	85.2%	80.0%	0.81	n.s.
Intercourse side by side	85.2%	79.0%	0.95	n.s.
Masturbating sexual partner	83.3%	77.1%	0.91	n.s.
Intercourse sitting position	83.3%	81.9%	0.22	n.s.
Reading/watching pornography	83.3%	64.8%	2.44	< .05
Masturbating alone	83.3%	70.5%	1.76	n.s.
Mutual oral stimulation of genitals	77.8%	82.9%	-0.78	n.s.
Intercourse/unusual positions	77.8%	80.0%	-0.32	n.s.
Intercourse/vaginal entry from rear	76.9%	79.0%	-0.30	n.s.
Being seduced	75.9%	75.0%	0.12	n.s.
Seducing a sexual partner	75.9%	70.5%	0.72	n.s.
Having sex that lasts for hours	75.9%	62.9%	1.66	n.s.
Using dirty language	70.4%	51.4%	2.30	< .05
Intercourse/unusual locations	66.7%	65.7%	0.13	n.s.
Caressing partner's anal area	61.1%	37.1%	2.88	< .01
Having anal area caressed	61.1%	49.5%	1.39	n.s.
Watching a sexual partner masturbate	55.6%	51.4%	0.50	n.s.
Performing sex acts before a mirror	53.7%	53.3%	0.05	n.s.
Sex with a virgin	47.2%	24.0%	2.98	< .01
Having partner watch you masturbate	44.4%	43.8%	0.07	n.s.
Dressing with erotic garments	37.0%	56.2%	-2.30	< .05
Being discovered making love	35.2%	28.6%	0.85	n.s.
Sex with a stranger	32.1%	18.1%	2.00	< .05
Using artificial devices	25.9%	31.4%	-0.72	n.s.
Anal intercourse	22.2%	26.7%	-0.62	n.s.

TABLE 4 (continued)

Experience	Males	Females	Z-Score	<i>p</i>
Watching others make love	20.4%	20.0%	0.06	n.s.
Being forced to submit to sexual acts	18.5%	24.8%	-0.90	n.s.
Seeing pictures/film of self making love	17.0%	8.6%	1.58	n.s.
Forcing partner to submit	15.4%	9.5%	1.11	n.s.
Being tied/bound during sex activities	15.1%	16.2%	-0.18	n.s.
Sex with two or more people	13.2%	8.6%	0.91	n.s.
Exhibiting body in public	11.3%	9.5%	0.36	n.s.
Being tortured by a sexual partner	11.3%	2.9%	2.16	< .05
Being whipped or beaten by partner	11.3%	1.9%	2.56	< .05
Whipping/beating partner	9.4%	1.9%	2.18	< .05
Torturing sexual partner	9.4%	1.9%	2.18	< .05
Degrading sexual partner	9.4%	1.9%	2.18	< .01
Sex with a close relative	5.7%	2.9%	0.87	n.s.
Watching someone make love to partner	5.7%	1.9%	1.29	n.s.
Being sexually degraded	5.7%	7.6%	-0.45	n.s.
Dressing in clothes of opposite sex	5.7%	12.4%	-1.33	n.s.
Being involved in a sexual orgy	5.7%	2.9%	0.87	n.s.
Mate swapping	3.8%	2.9%	0.31	n.s.
Performing sexual acts for an audience	3.8%	0.0%	2.02	< .05
Homosexual experience if heterosexual, heterosexual experience if homosexual	3.8%	6.7%	-0.75	n.s.
Being a prostitute	1.9%	1.9%	0.00	n.s.
Sexual relations with animals	1.9%	0.0%	1.42	n.s.

corresponding fantasies. Figures 1-4 are the plots of the cumulative and recent incidence of 28 sexual fantasies versus the corresponding sexual experiences for female subjects and 41 sexual fantasies and corresponding sexual experiences for male subjects. In all cases the correlation was significant at $p < .001$.

DISCUSSION

As previously noted (Table 2), male subjects consistently endorsed slightly more items than female subjects for both fantasy and experience. This is quite different from the results reported by Person et al.¹ In their study, for the fantasy samples, the males endorsed almost twice as many items as the females. But for the experience samples, the two sexes endorsed a similar number of items. Thus, there was a narrowing of the gender difference, with respect to the variety of fantasy in which individuals engaged, in the intervening ten years. In contrast, there is a gender difference for the experience items which was not present in the Person et al. study.

Similarly, in comparing the relative degree of gender influence between sexual behavior and sexual fantasy, Person et al.'s study demonstrated a dramatic gender difference in sexual fantasy, but little gender

TABLE 5
Recent Sexual Fantasies
College Population

Fantasy	Males	Females	Z-Score	<i>p</i>
Touching/kissing sensuously	94.4%	92.5%	0.47	n.s.
Being sensuously touched	90.7%	89.6%	0.22	n.s.
Oral-genital sex	85.2%	69.5%	2.16	< .05
Naked caressing	83.3%	80.2%	0.48	n.s.
Watching partner undress	81.5%	58.5%	2.91	< .01
Seducing partner	72.2%	66.0%	0.79	n.s.
Intercourse in unusual positions	72.2%	57.1%	1.86	n.s.
Masturbating your partner	70.4%	48.1%	2.68	< .01
Walking hand in hand	69.8%	71.4%	-0.21	n.s.
Sex that lasts for hours	66.7%	41.5%	3.01	< .01
Being seduced	63.0%	63.2%	-0.03	n.s.
Having partner masturbate you	61.1%	45.3%	1.89	n.s.
Two or more lovers	57.4%	20.8%	4.66	< .001
Sex in unusual locations	57.4%	50.0%	0.89	n.s.
Sex with a virgin	53.7%	10.4%	5.98	< .001
Making love with the possibility of being discovered	51.9%	27.4%	3.06	< .01
Performing sex acts before a mirror	46.3%	34.9%	1.40	n.s.
Watching partner masturbate	46.3%	33.0%	1.64	n.s.
Using dirty language	44.4%	26.4%	2.30	< .05
Sex with a mysterious stranger	40.7%	24.5%	2.12	< .05
Forbidden lover in sex adventures	38.9%	26.4%	1.62	n.s.
Sex with a famous person	37.0%	20.8%	2.21	< .05
Anal intercourse	35.2%	11.3%	3.61	< .001
Sex with a much older person	31.5%	13.2%	2.77	< .01
Seeing pictures/videos of yourself having sex	31.5%	12.3%	2.94	< .01
Gaining love of a rejecting lover	30.8%	25.0%	0.78	n.s.
Having partner watch you masturbate	29.6%	23.8%	0.80	n.s.
Being involved in an orgy	29.6%	12.3%	2.70	< .01
Sex with a much younger partner	29.6%	12.3%	2.70	< .01
Getting married	27.8%	49.0%	-2.58	< .05
Melting the heart of a cold partner	27.8%	17.3%	1.54	n.s.
Forcing partner to submit	25.9%	11.3%	2.37	< .05
Being tied up or bound during sex	24.1%	19.0%	0.74	n.s.
Watching others make love	24.1%	19.8%	0.62	n.s.
Being forced to submit	18.5%	21.9%	-0.50	n.s.
Being brought into a room against your will	14.8%	14.2%	0.11	n.s.
Being rescued from danger by one who will become my lover	14.8%	18.9%	-0.64	n.s.
Dressing in special costumes	13.0%	17.0%	-0.66	n.s.
Exhibiting body in public	11.1%	10.4%	0.14	n.s.
Homosexual fantasies if heterosexual, heterosexual fantasies if homosexual	9.4%	21.7%	-1.93	n.s.

TABLE 5 (continued)

Fantasy	Males	Females	Z-Score	<i>p</i>
Whipping/beating partner	9.3%	2.8%	1.76	n.s.
Mate swapping	9.3%	2.8%	1.76	n.s.
Fantasizing that you are the opposite sex	5.6%	13.2%	-1.49	n.s.
Performing sex before an audience	5.6%	12.3%	-1.34	n.s.
Being tortured by a sex partner	5.6%	2.8%	0.86	n.s.
Torturing sex partner	5.6%	0.9%	1.77	n.s.
Degrading sex partner	5.6%	1.0%	1.73	n.s.
Being sexually degraded	3.7%	5.7%	-0.54	n.s.
Being a prostitute	3.7%	8.5%	-1.13	n.s.
Being whipped/beaten by a partner	3.7%	1.9%	0.70	n.s.
Watching someone else make love to your partner	3.7%	2.8%	0.30	n.s.
Sex with a close relative	3.7%	2.8%	0.30	n.s.
Being attracted to someone with a physical abnormality	1.9%	1.9%	-0.02	n.s.
Dressing in clothes of the opposite sex	1.9%	2.8%	-0.37	n.s.
Sexual relations with animals	0.0%	0.0%	0.00	n.s.

difference in sexual behavior. Our data suggest that a similar trend still exists, though the differences are less dramatic.

Even though females continue to use sexual fantasy less than males, this difference has decreased in the past 10 years. Person et al. found a significant gender difference in 26 of 55 items (47%) for the recent fantasy sample and 33 of 55 (60%) for the cumulative fantasy sample. The corresponding proportions from our data result in 31% of the items (17 of 55) showing a significant gender difference for the recent sample and 34% of the items for the cumulative sample (19 of 55).

The same cannot be said for behavior. We found somewhat more recent experience items for which a significant gender difference can be demonstrated than did Person et al.¹ but this was not so for the cumulative items. Person et al. found a significant gender difference in 4 of 67 (6%) recent experience items and 10 of 67 (15%) cumulative experience items while our corresponding sample showed a gender difference in 13 of 67 items (19%) for both samples. But our subjects showed little gender difference in the total number of items endorsed (Table 2). Possibly, the demographic differences between our male and our female subjects influenced the data on behavior and experience to a greater extent than the data on fantasy. The presence of a larger number of married individuals among the female subjects may explain the change in the amount of gender difference in the recent experience sample, while the amount of gender difference remained relatively unchanged in the cumulative experience sample.

Previous studies have demonstrated that there is a tendency for a lessening of gender differences over time, especially with respect to certain sexual experiences. Clement,⁴ for example, demonstrated this trend for

TABLE 6
Cumulative Sexual Fantasies
College Population

Fantasy	Males	Females	Z-Score	<i>p</i>
Touching/kissing sensuously	98.1%	97.2%	0.35	n.s.
Watching partner undress	98.1%	84.0%	2.67	< .01
Being sensuously touched	96.3%	96.2%	0.03	n.s.
Oral-genital sex	96.3%	83.8%	2.30	< .05
Naked caressing	92.6%	91.5%	0.24	n.s.
Walking hand in hand	92.5%	91.4%	0.24	n.s.
Seducing partner	90.7%	80.2%	1.70	n.s.
Sex in unusual locations	88.9%	82.1%	1.12	n.s.
Being seduced	87.0%	80.2%	1.07	n.s.
Sex that lasts for hours	87.0%	74.5%	1.83	n.s.
Intercourse in unusual positions	87.0%	81.9%	0.82	n.s.
Having partner masturbate you	85.2%	67.9%	2.35	< .05
Sex with a virgin	85.2%	32.1%	6.35	< .001
Masturbating your partner	83.3%	74.5%	1.26	n.s.
Making love with the possibility of being discovered	77.8%	49.1%	3.49	< .001
Two or more lovers	75.9%	45.3%	3.68	< .001
Sex with a mysterious stranger	70.4%	47.2%	2.79	< .01
Watching partner masturbate	70.4%	57.5%	1.59	n.s.
Using dirty language	68.5%	53.8%	1.79	n.s.
Sex with a famous person	64.8%	50.0%	1.78	n.s.
Gaining love of a rejecting lover	61.5%	45.2%	1.95	n.s.
Melting the heart of a cold partner	61.1%	48.1%	1.56	n.s.
Performing sex acts before a mirror	61.1%	61.3%	-0.02	n.s.
Forbidden lover in sex adventures	59.3%	49.1%	1.22	n.s.
Sex with a much older person	57.4%	36.8%	2.48	< .05
Watching others make love	57.4%	46.2%	1.34	n.s.
Anal intercourse	55.6%	25.5%	3.76	< .001
Being involved in an orgy	55.6%	29.2%	3.25	< .01
Sex with a much younger partner	55.6%	30.2%	3.12	< .01
Having partner watch you masturbate	55.6%	53.3%	0.28	n.s.
Getting married	51.9%	70.6%	-2.33	< .05
Being forced to submit	44.4%	36.2%	1.01	n.s.
Forcing partner to submit	42.6%	22.6%	2.62	< .01
Seeing pictures/videos of yourself having sex	42.6%	32.1%	1.31	n.s.
Being tied up or bound during sex	40.7%	42.9%	-0.27	n.s.
Dressing in special costumes	38.9%	44.3%	-0.65	n.s.
Being brought into a room against your will	33.3%	27.4%	0.77	n.s.
Mate swapping	25.9%	11.3%	2.37	< .05
Being rescued from danger by one who will become my lover	25.9%	46.2%	-2.49	< .05
Whipping/beating partner	22.2%	3.8%	3.67	< .001
Homosexual fantasies if heterosexual, heterosexual fantasies if homosexual	18.9%	33.0%	-1.87	n.s.

TABLE 6 (continued)

Fantasy	Males	Females	Z-Score	<i>p</i>
Fantasizing that you are the opposite sex	18.5%	24.5%	-0.86	n.s.
Exhibiting body in public	18.5%	23.6%	-0.74	n.s.
Being whipped/beaten by a partner	18.5%	4.7%	2.83	< .01
Being attracted to someone with a physical abnormality	18.5%	10.4%	1.43	n.s.
Being sexually degraded	18.5%	7.5%	2.09	< .05
Sex with a close relative	16.7%	8.5%	1.55	n.s.
Performing sex before an audience	16.7%	18.9%	-0.34	n.s.
Being a prostitute	14.8%	18.9%	-0.65	n.s.
Being tortured by a sex partner	13.0%	4.7%	1.88	n.s.
Dressing in clothes of the opposite sex	13.0%	13.2%	-0.04	n.s.
Watching someone else make love to your partner	13.0%	11.3%	0.31	n.s.
Degrading sex partner	9.3%	3.0%	1.71	n.s.
Torturing sex partner	9.3%	1.9%	2.16	< .05
Sexual relations with animals	0.0%	2.8%	-1.24	n.s.

masturbation, coitus, and homosexual experiences. We confirm this trend for these three activities, as we did not find any significant gender difference for the three corresponding items on our questionnaire for either the recent or the cumulative data.

The high correlation between fantasy and experience from the match-pair analysis (Figures 1-4) is not surprising. The growing awareness and acceptability of variety in sexual activity may provide our subjects the opportunity to practice the behaviors about which they fantasize. Yet, females consistently showed a higher degree of correlation than males. An explanation may be that males entertain certain fantasies which *do not* correlate with engaging in the matched experience, while the same is *not* true for females. Men do fantasize about sexual activities that are out of the range of their individual experiences. Women do not. This difference in the manner in which each gender utilizes fantasy may help explain the gender differences noted earlier. Since men are more likely to have fantasies about sexual acts outside of their experience, it follows that we would find a gender difference in amount and type of sexual fantasies, and not in experience.

The nature of the questionnaire presents some statistical problems, the foremost of which is the use of multiple repeated measures on the same sample. We feel, however, that the trends we observed are valid because of the large number of statistically significant differences uncovered and because of the high level of significance, at or beyond the $p < 0.01$ level, noted for many of the differences.

A consequence of the methodology (a survey with forced choices and designated answers) is that specific fantasies or experiences that are not enumerated in the survey items could not be part of the study. Thus, we

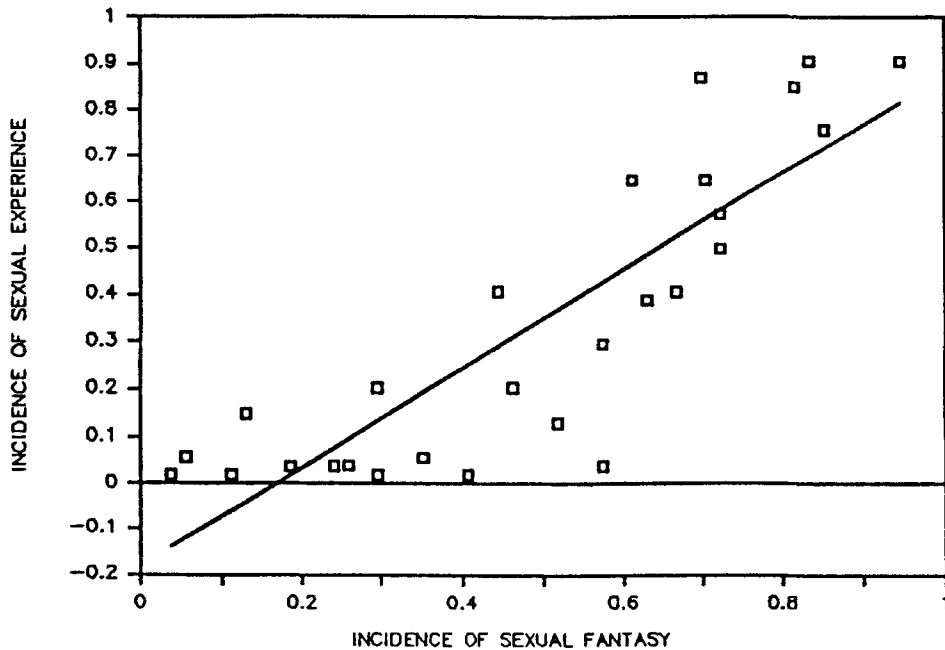


Figure 1. Scatter-plot of the recent incidence of 28 sexual fantasies versus the recent incidence of the corresponding sexual experiences in a sample of heterosexual male college students (see text for a discussion of these variables). Recent incidence is expressed here as the proportion of subjects who have had the fantasy or the corresponding experience in the previous three months. Linear regression was performed on the 28 pairs of proportions and the resulting correlation was found to be large ($R = 0.86$) and highly significant ($F = 74.23$, $p < .001$ with $df = 26$). The regression line is shown overlying the scatter-plot and is of the form: $Y' = 0.860573X - 0.17622$.

may be missing significant and interesting data. Perhaps gender differences were magnified because there were insufficient "female-oriented" items in the questionnaire. Other studies have used an open-ended, essay-type questionnaire, or personal interviews, to circumvent this problem. Our goal, however, was to replicate, as much as possible, the study design used by Person et al.¹ 10 years ago.

Further study in this area would be useful to clarify some of the trends noted. For example, does the trend we observed toward an increase in gender difference in sexual experience signify a reversal of the generally accepted trend that the two sexes are "converging"? It would also be of interest to control for ethnic and cultural differences.

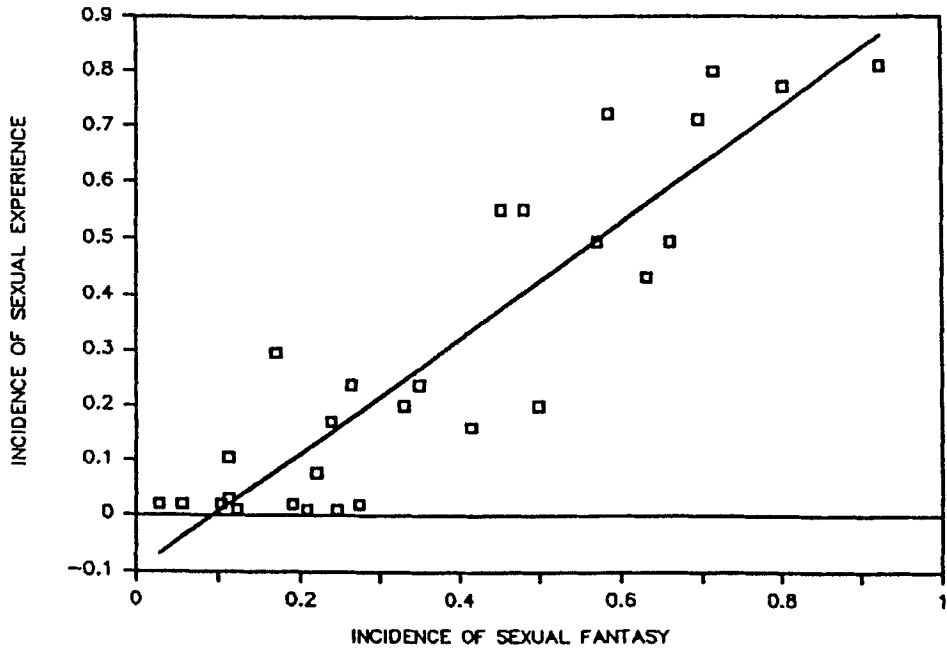


Figure 2. Scatter-plot of the recent incidence of 28 sexual fantasies versus the recent incidence of the corresponding sexual experiences in a sample of heterosexual female college students (see text for a discussion of these variables). Recent incidence is expressed here as the proportion of subjects who have had the fantasy or the corresponding experience in the previous three months. Linear regression was performed on the 28 pairs of proportions and the resulting correlation was found to be large ($R = 0.91$) and highly significant ($F = 121.68$, $p < .001$ with $df = 26$). The regression line is shown overlying the scatter-plot and is of the form: $Y' = 1.042699X - 0.09701$.

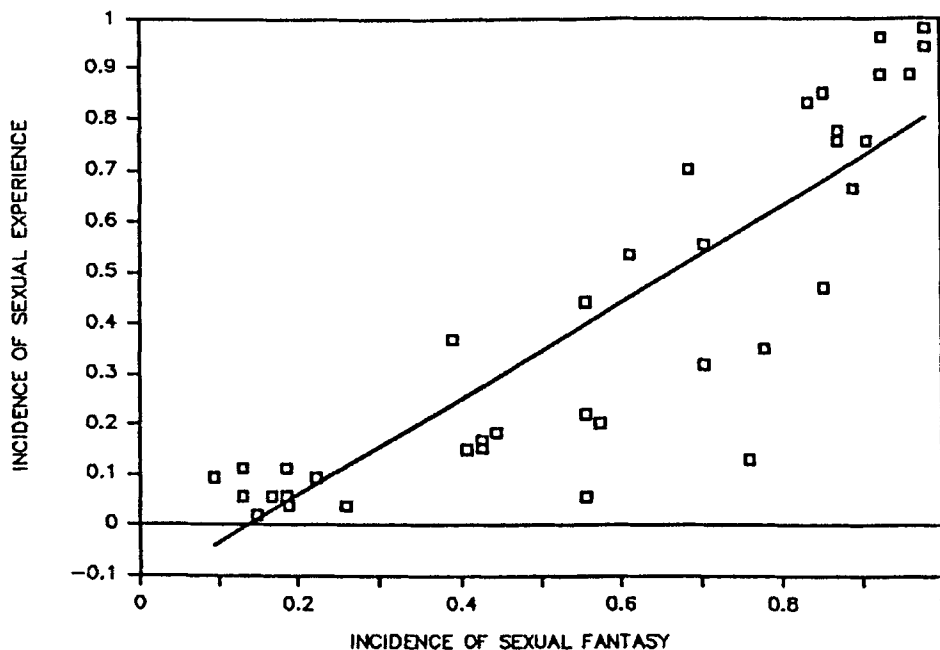


Figure 3. Scatter-plot of the cumulative incidence of 41 sexual fantasies versus the cumulative incidence of the corresponding sexual experiences in a sample of heterosexual male college students (see text for a discussion of these variables). Cumulative incidence is expressed here as the proportion of subjects who have ever had the fantasy or the corresponding experience. Linear regression was performed on the 41 pairs of proportions and the resulting correlation was found to be large ($R = 0.89$) and highly significant ($F = 144.32$, $p < .001$, $df = 39$). The regression line is shown overlying the scatter-plot and is of the form: $Y' = 0.952579X - 0.12925$.

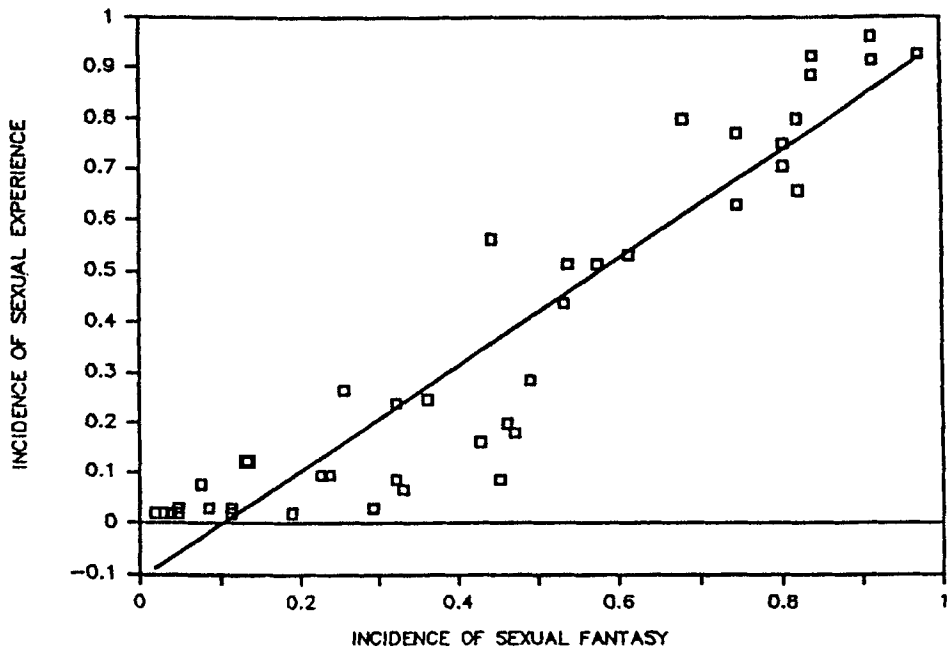


Figure 4. Scatter-plot of the cumulative incidence of 41 sexual fantasies versus the cumulative incidence of the corresponding sexual experiences in a sample of heterosexual female college students (see text for a discussion of these variables). Cumulative incidence is expressed here as the proportion of subjects who have ever had the fantasy or the corresponding experience. Linear regression was performed on the 41 pairs of proportions and the resulting correlation was found to be large ($R = 0.94$) and highly significant ($F = 294.98$, $p < .001$, $df = 39$). The regression line is shown overlying the scatter-plot and is of the form: $Y' = 1.055632X - 0.10762$.

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