THE RELATIONSHIP BETWEEN FULFILLMENT OF INTERPERSONAL NEEDS AND ORGASM IN WOMEN

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ABSTRACT

THE RELATIONSHIP BETWEEN FULFILLMENT OF INTERPERSONAL NEEDS AND ORGASM IN WOMEN

Ву

Allison Blake Stern

Sexual histories and descriptions of last sexual experience were collected from 899 women. The protocols of the 382 women who reported coitus as their last sexual experience were used to evaluate the hypothesis that women having an orgasm during their last coital experience demonstrate more fulfillment of interpersonal needs than women reporting no orgasm during their last coitus. Two raters scored the protocols using a scale developed for this study from Apperson's (1973) Sexual Motive Projective Test for measurement of fulfillment of interpersonal needs.

The results soundly supported the hypothesis. The association of fulfillment of interpersonal needs and orgasm during last coital experience held for women reporting

25-100% of orgasm attainment, but the relationship was not observed in the low orgasm percentage group (0-24%).

Number of months of previous coital experience was not related to interpersonal gratification scores. Orgasm during last coital experience, however, was less likely for women who had engaged in intercourse less than one month. For women having had intercourse longer than one month, there was no association between orgasm and amount of previous coital experience.

Orgasm during last coitus was independent of involvement in a relationship. Relationship type (e.g., married; going steady) and duration were also unrelated to last coital orgasm.

The interpersonal needs most frequently scored were Affiliation, Succorance, and Nurturance. There was no difference in the mean word length of the sexual descriptions nor any difference in the mean time elapsed since last coitus of women who were orgastic and nonorgastic during their last coital experience.

The subjects in the present study were compared to previously researched groups based on national probability sampling. The incidence of types of sexual

experiences, percentage of orgasms during these sexual experiences, monthly coital frequency, and number of coital partners reported by subjects in the present study was similar to previous studies. The number of subjects using contraception was similar to previously researched samples, but the type of contraceptives used differed.

Qualifications and implications of the findings of this research were discussed and future research directions were suggested. A speculative and syncretic model of female sexual functioning was developed containing hypotheses for future testing.

Approved:

Date:

THE RELATIONSHIP BETWEEN FULFILLMENT OF INTERPERSONAL NEEDS AND ORGASM IN WOMEN

Ву

Allison Blake Stern

A THESIS

Submitted to
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To Don,

My lover and companion

I have awakened to fresh mornings of whimsy with you

I have hurt and hoped with you

And together we have shared the meaning we both sought

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I cannot thank Dr. Joseph Reyher or Dr. Donald Grummon enough. These men have been consistent sources of knowledge for me. That would have been enough. However, the gifts of warmth, compassion, honesty, and humor they gave have significantly changed my life and will never be forgotten.

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INTRODUCTION

This study was an attempt to directly assess whether or not gratification of interpersonal needs is associated with orgasm in women during coitus. Affiliation, aggression, achievement, deference, dominance, exhibition, nurturance, and succorance were assumed, on a priori basis to be a salient, though not necessarily exhaustive, subset of interpersonal needs playing a role during coitus. The gratification or lack of gratification of these needs, not the psychological significance of their presence or absence, was ascertained. The approach used in this investigation contrasts with the strategy of those studies which attempt to relate global personality characteristics, adjustment, and pathology in women to measures of sexual behavior.

Numerous investigations have attempted to ferret out the personality characteristics of women with different degrees of sexual responsiveness. The personality characteristics are often condensed by using such reified labels as psychotic, neurotic, and normal. The problems

of reliability and validity associated with such nosological terms are well documented (e.g., Sarbin, 1967; Rosenhan 1973, 1975). The measures of sexual responsiveness used in the investigations vary and assumptions should not be made that these measures correlate highly with each other (Fisher, 1973). However, commonly used measures of sexual responsiveness are organ attainment, frequency of intercourse, and satisfaction with intercourse.

The results of these quests for the personality profiles of women with differing degrees of sexual responsiveness are mixed. Some investigations have found an inverse relation between degree of maladjustment and sexual responsiveness (e.g., Landis et al., 1940; Coppen, 1965; Winokur et al., 1959; Terman, 1938, 1951; Purtell et al., 1951; Swenson, 1962; O'Neil and Kempler, 1969), others have not (Winokur et al., 1959; McCulloch and Stewart, 1960; Cooper, 1969; Freedman, 1965; Miller and Wilson, 1968). Personality variables, historical information, and demographic data have been collected about men and attempts have been made to relate these variables to the sexual responsiveness of their partners (e.g., Terman, 1938, 1951). Again, the empirical literature is mixed regarding partner attributes (Fisher, 1973).

Investigations which assess personality characteristics of women with differing degrees of sexual responsiveness elucidate little about interpersonal factors and sexual responsiveness, even allowing for the problems of reliability and validity associated with such studies. Personality variables should not be viewed as absolute entities. People cannot be shuffled from relationship to relationship with similar interpersonal effects and partners cannot be defined globally with such hypostatized concepts as easy-to-relate-to vs. difficult-to-relate-to. Fisher (1973), when discussing the finding that wives married to difficult-to-relate-to partners (i.e., alcoholics) do not display limited orgasmic functioning, questions the importance of the association of interpersonal factors and sexual responsiveness (p. 32). Such analyses overlook the probability that interpersonal needs are relative, that it is not necessarily the psychological significance of the presence or absence of specific traits or needs which is important to assess, but the degree to which interpersonal needs are fulfilled in a relationship, regardless of what they are.

Some investigations have examined the relationship between both participants in coitus to assess the

interdependence of interpersonal factors and sexual functioning. However, most investigations have used relatively global measures of interpersonal relationships. Dickinson and Beam (1931) and Terman (1938, 1951), report unhappy couples have intercourse just about as frequently as happy couples. Landis et al. (1940) could not establish a correlation between orgasm consistency in women and marital happiness. In contrast, Terman (1938, 1951), Kinsey et al. (1953), and Chesser et al. (1957), found that marital happiness and orgasm capacity in women are positively correlated.

Global estimates of the quality of a relationship, such as marital happiness, may change over the duration of a relationship with her partner, and for some women, daily. "Happiness" cannot be used as a synonym for satisfaction of interpersonal needs, or "unhappiness" equated with a lack of fulfillment of interpersonal needs. Furthermore, it is quite possible that the interpersonal needs salient immediately before, during, and after coitus may differ from those elicited at other times in the relationship or outside coital situations. The fulfillment or lack of fulfillment of these needs may vary in these different situations. Likewise, the interpersonal

needs present in a sexual situation may differ from coital experience to coital experience in the same woman and may vary considerable for different women.

Clearly, a situational examination of interpersonal factors and sexual responsiveness, without assumptions of personality traits and the use of global measures, such as marital happiness, is needed to fill the lacunae of knowledge about female sexual responsiveness. The hypothesis that fulfillment of interpersonal needs and orgasm during a particular coital experience are associated in women will be referred to as the interpersonal gratification hypothesis.

METHOD

Subjects

Subjects were undergraduate female volunteers who signed up to participate in an experiment on "women's feelings about intercourse." The title of the experiment was chosen so that subjects knew the general content of the research and could avoid participating if they found it offensive. The title was also chosen so that by signing up for the research, subjects were not indicating publicly the extent of their sexual experience. The latter was felt to be important because in earlier research subjects indicating coital experience received objectionable anonymous phone calls.

All subjects were enrolled in psychology courses and most were freshmen. Of the 899 subjects, 382 subjects reported having intercourse during their last sexual experience.

Materials

- 1. Sexual Description Form. The sexual description form requests a subject to describe her thoughts and feelings about her last sexual experience, whether coitus was involved, and whether she had an orgasm (see Appendix A).
- 2. Sexual History Form. This form covered a range of materials regarding the subjects' sexual activities and personal data (See Appendix A).

Procedure

One male and three female experimenters administered the measures used in this study to 100 groups of women. The groups ranged in size from three to sixty subjects. The Sexual Description Form was presented first and followed by the Sexual History Form. Subjects were encouraged to be frank and assured of their anonymity.

Measurement

Subjects described their sexual experience in a "free response" manner in that they had no clues about the interpersonal dimensions under investigation. In order to measure the fulfillment or lack of fulfillment

of interpersonal needs of these protocols, a scale was constructed from Apperson's (1973) Sexual Motive Projective Test (SM-PT). Apperson (1973) constructed the SM-PT from Murray's (1938) need system to measure psychological motivation for sexual behavior in males and females. an a priori basis, she postulated the following needs as important for sexual motivation: Achievement (Ach), Affiliation (Aff), Aggression (Agg), Deference (Def), Dominance (Dom), Exhibition (Exh), Nurturance (Nur), Succorance (Suc). The definitions of the motive categories Apperson (1973) used to construct the items of the SM-PT are contained in Appendix B. For content validity Apperson (1973) had six clinicians rate the statements she used for measurement of sexual motivation. The items she used in the SM-PT had perfect agreement by at least four out of the six judges that the statements were related to the definitions she used.

Half of the sentences which compose the SM-PT are appropriate to females; these sentences were used as criterion sentences by raters in the present study. Two modifications of these sentences were necessary. First, additional sentences were constructed which stated the needs in an unfulfilled form. This unfulfilled form was

an opposite or negated statement of the Apperson (1973) sentences. Second, the sentences were put in the first person, rather than the third, to facilitate ease of rating.

Whenever the phrase in a woman's description of her last sexual experience matched a criterion sentence, the match was noted. The criterion sentences, as stated above, were written in sets of two, one of each pair referring to fulfillment of an interpersonal need, the other referring to lack of fulfillment of that particular need. When a subject's phrase matched a "fulfillment" criterion sentence, the match was scored +1. When the match was with a "lack of fulfillment" criterion sentence, the match was scored -1. The algebraic sum of each subject's protocol for all the needs was a quantitative estimate of the degree of overall fulfillment, regardless of the nature of the needs.

This sum was weighted by the number of words in the subject's protocol

 $(\frac{\text{sum of interpersonal needs}}{\text{number of words used}} \times 100)$

to minimize the chance of a subject's score being influenced mainly by the brevity or length of her record. The

overall estimate of how many needs were satisfied or unsatisfied, weighted by number of words used, will be referred to as a subject's interpersonal gratification for that sexual experience. A high interpersonal gratification score means that a subject demonstrated more fulfillment of interpersonal needs during her last coital experience than a subject with a low interpersonal gratification score.

The women's descriptions of their last coital experiences were typed and separated from their forms. The typing was to insure that raters would only be analyzing the protocols on the basis of what the women wrote, without knowledge of orgasmic status during last coital experience or the information contained in the sexual history form. The raters were two psychology graduate students.

RESULTS

Reliability

One psychology graduate student scored all the subjects' descriptions of their last coital experience for fulfillment or lack of fulfillment of interpersonal needs. Forty-five records, or over 10% of the protocols, were randomly chosen from the sample of women indicating they had had intercourse as their last sexual experience for a second psychology graduate student to score. first rater was female, the second rater was male. ing independently, the range of scores they computed was from -9 to +17 (uncorrected for word length). In 25 cases the raters scored the same score; in 11 cases they were differed by 1 point; and in 9 cases they deviated from 2-4 points. The Spearman rank-order correlation corrected for ties was computed for the rankings of the two raters. The degree of interjudgment agreement was .93.

In order to evaluate the results, standard ttests were employed. In addition F tests were used to

examine whether the assumption of homogeneity of variance of the t-tests was met. In these analyses, a significant F test means that the variances were not homogeneous. Since the groups compared were often not of equal size, relying on the robustness of the t-test, if there was heterogeneity of variance, was not considered the best approach. In addition to the t and F tests, then, the Bayesian Posterior Probability, which does not assume homogeneity of variance, was computed. (For a further description of the Bayesian Posterior Probability see Footnote C, Table 5.) A high Bayesian Posterior Probability (i.e., near 1) gives strong evidence that the sample means differ. In the tables which follow, the Bayesian Posterior Probability has been omitted if the F tests indicated that the homogeneity of variance assumption was met (i.e., p > .05). The t-tests were then considered appropriate and sufficient.

The data from the 382 subjects reporting coitus as their last sexual experience was used in the analysis of the hypothesis. These 382 subjects, were designated as coitus-last subjects. It should be noted that subjects not reporting coitus as their last sexual experience were not necessarily virgins; they simply did not have

intercourse as their last sexual experience. When coituslast subjects are described as orgastic or non-orgastic, only the presence or absence of orgasm during their last sexual experience is meant to be indicated.

Interpersonal Gratification

The interpersonal gratification hypothesis was soundly supported. The mean interpersonal gratification of orgastic coitus-last subjects was significantly higher than non-orgastic coitus-last subjects.

Table 1. Comparison of mean interpersonal gratification of orgastic and nonorgastic women during last coital experience.

Groups	Mean	N ^a	Variance	t ^b	F ^C
Orgastic	3.498	217	21.964	6.889*	1.049
Nonorgastic	.111	162	23.031		

^aThree subjects did not report whether or not they had an orgasm during their last coital experience.

The significance level reported is for a nondirectional test.

^CThe assumption of homogeneity variance was tested with the F statistic which is appropriate when normality holds (Hays, 1973).

^{*}p < .00001

Other Variables

In order to evaluate the interpersonal gratification hypothesis, the possibility that various factors were moderating variables was considered. The possible moderating variables examined were age, reported percentage of orgasm attainment, period of time since first coital experience, types of relationships the women reported they were involved in, the duration of these relationships, and whether the women planned to be married to their coital partners.

Age of Subjects

Since Kinsey et al. (1953) found a correlation of age and decade of birth with orgasm, the ages of the subjects were examined. The results shown in Table 2 were as expected because of the college population from which this sample was drawn. Ninety-three percent of the coitus-last subjects were 18-21 years of age. In fact, 82.5% of the coitus-last subjects were 18 or 19 years old. Ninety-four percent of the subjects were 18-21 years of age, disregarding the type of their last sexual experience.

Comparisons were made between the ages of orgastic and non-orgastic coitus-last women. As can be seen in Table 3, there was no significant difference in the mean

Table 2. Age of subjects. All women (A). Women reporting intercourse as their last sexual experience (B).

	N	Range	Mean	Standard Deviation
Α	897 ^a	14-44	18.48	1.69
В	382	14-44	18.81	2.25

^aTwo subjects omitted age information.

Table 3. Comparison of the ages of women reporting orgasm during their last coital experience.

Groups	Mean	Na	Variance	t	Fb
Orgastic	18.91	217	6.738	.943	2.325*
Nonorgastic	18.69	162	2.898		

^aThree subjects omitted whether or not they had an orgasm during their last coital experience.

^bThe assumption of homogeneity of variance was tested with the F statistic which is appropriate when normality holds (Hays, 1973).

 $^{^{}C}p < .01.$

ages. However, the variances were significantly different. The orgastic coitus-last group included the oldest and youngest participants.

Percentage of Orgasm Attainment

Table 4 presents the reported percentage of orgasm attainment of coitus-last subjects. Only the coitus-last subjects who reported having had coitus over six months are shown, since the reported percentage of orgasm attainment of women with minimal experience is difficult to interpret. Namely, women experiencing coitus for the first time have a percentage of orgasm attainment of either 0% or 100%. Six months coital experience was arbitrarily chosen as providing sufficient time for a subject to have had enough coitus to base an estimate of her percentage of orgasm attainment.

<u>Interpersonal Gratification and</u> <u>Percentages of Orgasm Attainment</u>

In order to evaluate the interpersonal gratification hypothesis in terms of reported percentages of orgasm attainment, comparisons were drawn between interpersonal

Table 4. Reported percentages of orgasm attainment of women who had coitus as their last sexual experience and who have had coitus longer than six months.

Orgasm Percentages	N	% of Subjects	Mean	Standard Deviation
0-25%	82	33.0	.472	.369
25-50%	25	10.0		
50-75%	46	18.5		
75-100% ^a	95	38.3		
Missing ^b	24			
	272	99.8 ^{c,d}		

^aInclusion is at the lower end point of the interval.

^bMissing data is from subjects who did not give their orgasm percentages.

^CPercentages are based on nonmissing data.

dInexact percentage totals are due to round-off error.

gratification of orgastic and non-orgastic coitus-last subjects falling within various ranges of percentage of orgasm attainment. Only subjects reporting having had coitus over six months were used in the analyses because of the aforementioned difficulty in interpreting an orgasm percentage of a woman with minimal coital experience.

As can be seen in Table 5, the mean interpersonal gratification of orgastic coitus-last women was significantly higher than the mean interpersonal gratification of nonorgastic coitus-last women, except the 0-24% range of attained orgasm. The trend in this group is the same as that for the other groups, though not significantly so (p < .07). A puzzling finding is the significant difference in the variances of the interpersonal gratification scores of the women on the extreme ends of reported range of orgasm attainment. Consistently, the nonorgastic coitus-last subjects had greater dispersion of scores than orgastic coitus-last women.

Table 5. Comparisons of the mean interpersonal gratification of orgastic and nonorgastic women who reported various percentages of orgasm attainment.

Groups	Mean	N ^a	Variance	t	F ^b	Probability ^C that the first mean > the 2nd mean
0-24%						_
Orgastic Nonorgastic	2.095 400	21 60	9.491 33.80	1.872	3.562**	.991
25-74%						
Orgastic Nonorgastic	3.810 571	42 28	20.792 18.847	4.013***	1.103	.999 -
<u>75-100%</u>						
Orgastic Nonorgastic	4.151 .688	66 16	23.146 43.696	2.392*	1.888	.967

^aAll subjects reported having had intercourse longer than six months. Thirty-seven subjects having coitus as their last sexual experience and having intercourse over six months, did not give their orgasm percentages.

^bThe assumption of homogeneity of variance was tested with the F statistic which is appropriate when normality holds (Hays, 1973).

CThe Bayesian posterior probability computed was the probability that the true strata means are ordered in the same way as the sample means. It is derived from an approximation to the Behrens-Fisher distribution. A high probability (i.e., near 1) gives strong evidence that the sample means differ. It is derived assuming normal sampling but not equal variances (Fox and Guire, 1973). The Behrens distribution approaches normality as the degrees of freedom tend to infinity. For a further description of the posterior probability computed and the approximation to the Behrens-Fisher distribution used, see Lindley Part 2 p. 91-95.

p < .05; p < .01; and p < .001.

Time Since First Intercourse

Table 6 presents the duration of time coituslast subjects reported having engaged in intercourse since their first coitus. The number of women who had experienced intercourse for a prolonged period of time was small in this population studied.

Table 6. The time since first intercourse of women reporting coitus as their last sexual experience.

Length of Time	Na	% of Subjects
First Time	11	3.0
< 1 month (but not 1st time)	13	3.5
> 1 month - 6 months	72	19.6
> 6 months - 1 year	83	22.6
> 1 year - 2 years	107	29.1
> 2 years	82 368	22.3 100.1 ^b

^aFourteen subjects omitted data on length of having had coitus. The percentages are based on nonmissing data.

b Inexact totals due to round-off error.

<u>Time Since First Intercourse</u> and Interpersonal Gratification

The possible moderating influence of time since first coitus, referred to here as experience, was considered in two ways. The first comparison utilized women with more coital experience. As Table 7 indicates, there was a significant difference in the mean interpersonal gratification scores of orgastic and non-orgastic coitus-last subjects who reported having had coitus over two years. If no significant difference had occurred, it would have been suggestive of a decline of importance in interpersonal factors with more experience.

Table 7. Comparison of interpersonal gratification and orgasm during last coital experience of women with more than two years of coital experience.

Group	Mean	Ŋa	Variance	tb	Łc
Orgastic	3.520	48	20.808	4.4398*	1.4765
Nonorgastic	706	34	14.093		

^aFourteen subjects omitted data on length of having had coitus.

^bThe significance level is for a nondirectional test.

^CThe homogeneity of variance assumption was tested with the F statistic which is appropriate when normality holds (Hays, 1973).

p < .00001.

To obtain further information on the variable of experience, a 2x6 Analysis of Variance was performed. The factors were orgasm (0) or not during last coital experience and duration of time (E) the women reported having engaged in intercourse. The dependent measure was interpersonal gratification with subjects nested in levels of factors 0 and E and the factors completely crossed.

Table 8. Analysis of Variance for the Effects of Orgasm^a and Experience^b on Interpersonal Gratification during Last Coital Experience.

Source	df	SS	MS	F
Orgasm (O)	1	287.475	287.475	13.637*
Experience (E)	5	133.091	26.618	1.263
0 x E	5	144.367	28.873	1.369
Error (within) ^C	353	7441.423	21.081	
Total	364	8006.356		

^aThree subjects did not report whether they had orgasm during their last coital experience.

Fourteen subjects omitted data on length of having had intercourse.

^CThe error term used throughout was the within-cell variance (mean square).

^{*}p < .01.

As can be seen in Table 8, the effect of orgasm and interpersonal gratification was significant for both age groups considered, irrespective of experience. The results indicate that interpersonal factors do not decline or increase in importance as a woman's sexual experience increases.

<u>Time Since First Intercourse</u> and Orgasm

The association of the variables experience and orgasm, disregarding interpersonal gratification, was tested with coitus-last subjects. The Pearson chi square test for independence was used to ascertain if there was some dependence of these variables. Cramer's phi, ψ' (Hays, 1973; Blalock, 1960), was also determined to provide a measure of the apparent strength of association of the variables. Experience and orgasm during last coital experience were not independent for the women (χ^2 =11.743, df=5, n=365, p < .03). However, the association of the variables was not strong (χ' =.18).

When extreme neophytes (women reporting having engaged in intercourse less than one month) were dropped from the analyses, independence of orgasm during last

coitus and experience was found (χ^2 =2.13, df=3, n=341, p > .05, ψ' =.08). Likewise, when the percentages of orgasm attainment of women reporting they had had intercourse over one month were computed, a hypothesis of independence of the variables could not be rejected (χ^2 =8.48, df=9, n=288, p > .05, ψ' = .10).

The results indicate that with less than one month of sexual experience, women may have difficulty attaining an orgasm, since 82% of the women having intercourse for the first time did not experience an orgasm and 62% of the women with less than one month of sexual experience did not have an orgasm during their last coitus. However, the effect of experience and orgasm quickly diminishes with time.

Types and Duration of Relationships

The generalizability of the interpersonal gratification and orgasm effect might be influenced by whether the women in this sample were involved in relationships, and if so, what kind (See Sexual History Forms). Since most of the coitus-last women were "going steady," the effect of interpersonal gratification and orgasm can be

most safely generalized to women in that type of relationship.

Table 9. Types of relationships reported by women having coitus as their last sexual experience.

Tune of Polationship	14-44 Year Old Women		
Type of Relationship	N	% of Subjects	
No relationship	41	10.7	
Married	19	5.0	
Living together (but not married)	9	2.4	
Steady boyfriend	256	67.0	
Had relationship before with coital partner (but not currently)	18	4.7	
Other kind of relationship	39	10.2ª	
	382	99.9	

a Inexact total due to round-off error.

Whether or not the women reported being in some sort of relationship, and if they were, the kind of relationship they reported, and orgasm during last coital experience were independent (χ^2 =5.692, df=5, n=379, p > .05, ψ' =.12). (See Table 9 for the relationship types.) Of

the women reporting being in a relationship and having had intercourse with the person described in the relationship, orgasm during last coital experience and the relationship types were dependent (χ^2 =.65, df=4, n=288, p > .05, ψ' = .05). Only 19 subjects reporting coitus as their last sexual experience had intercourse with someone other than the partner they described in the relationship section. These subjects were between 18-21 years of age and the relationships were "going steady" and "other." Orgasm during last coital experience was found to be independent of whether the subjects had intercourse with the person described in the relationship section or a person different from the person described in the relationship section $(\chi^2 = .26, df = 1, n = 286, p > .05, \psi' = .06)$. An analysis of relationship types and reported percentages of orgasm attainment yielded too few subjects per cell to compare the variables.

The duration of time women were involved in the relationships they reported should be considered, but too few subjects were involved in relationships other than "going steady." However, the relationship between duration of time being involved in a "steady" relationship was examined with respect to orgasm during the last coitus as

well as to percent of orgasm attainment. The time ranges examined were between one month and four years. The length of time the women reported having gone "steady" and orgasm during their last coital experience was found to be independent ($\chi^2=1.7$, df=3, n=219, p > .05, $\psi'=.09$). Only women having intercourse with their steady were used in these analyses. Likewise, the length of time the women stated they were "going steady" and their reported percentages of orgasm attainment were found to be independent $(y^2=8.8. df=9, n=127, p > .05, \psi'=.15)$. The women used in these analyses had to have been having intercourse over six months to make the percentages of orgasm attainment more meaningful, and they had to have had their last coital experience with the person with whom they were "going steadv."

Interpersonal Needs

As can be seen in Figure 1, the most frequently scored need was fulfillment or gratification of Affiliation. Lack of fulfillment of aggression was the least scored need. Considering each of the eight interpersonal needs scored, gratification was scored more than lack of gratification, except for the need for achievement. Lack

of fulfillment of the need for achievement was scored more frequently than fulfillment of the need for achievement.

Number of Words Used in the Sexual Descriptions

Although the interpersonal gratification scores included a correction for word length, there was no significant difference in the mean word length of the protocols of orgastic and non-orgastic coitus-last women.

Table 10. Comparison of the number of words used by orgastic and nonorgastic women in their descriptions of coitus.

Group	Mean	N ^a	Variance	tb	Fc
Orgastic	104.89	216	3878.1	-1.5211	1.0808
Nonorgastic	114.91	162	4191.5		

^aThree subjects did not report whether they had an orgasm during their last coital experience. Word length was not computed for one subject.

bp > .05; nondirectional test.

^CThe assumption of homogeneity of variance was tested with the F statistic which is appropriate when normality holds (Hays, 1973).

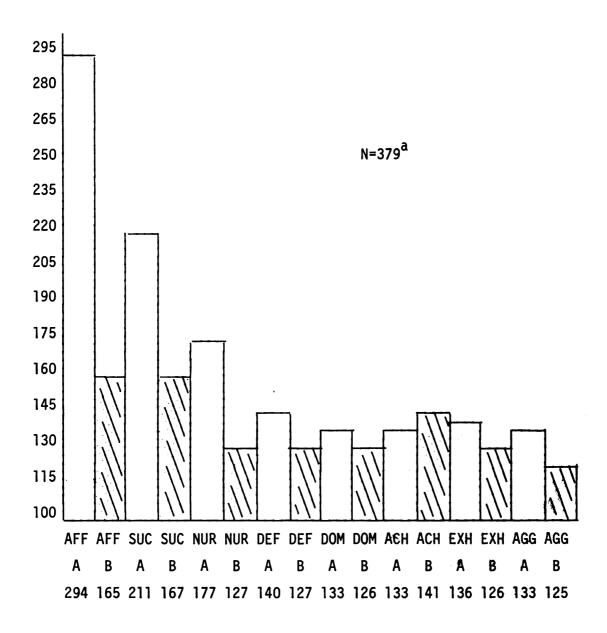


FIG. 1.--Histogram of the number of individual needs scored for all subjects who reported coitus as their last sexual experience. Fulfillment of the interpersonal need (A). Lack of fulfillment of the interpersonal need (B).

^aThree subjects did not report whether or not they had an orgasm during their last coital experience and these protocols were not scored.

Time Elapsed Since Last Coitus

As can be seen from Table 11, there was no significant difference in the mean time since last coitus of orgastic and non-orgastic coitus-last subjects.

Table 11. Comparison of the time elapsed since last coitus of orgastic and nonorgastic women.

Groups	Mean	Np	Variance	t ^c	Fd
Orgastic ^a	2.528	214	1.0955	3636	1.054
Nonorgastic	2.568	155	1.0392		

^aTime based on categorical coding rather than actual time.

Comparability of This Sample to Others

This sample was compared to previously researched samples for incidence of types of sexual experience, orgasm, frequency of coitus, number of coital partners, and

^bThree subjects didn't put whether or not they had an orgasm during their last coital experience. Ten subjects did not put length of time since their last coital experience.

c
p > .05; nondirectional test.

dThe homogeneity of variance assumption was tested with the F statistic which is appropriate when normality holds (Hays, 1973).

contraceptive use. Previously researched samples of roughly similarly aged subjects were used for comparison, and subjects in the present study falling outside the age range of 18-21 years were excluded.

The previously researched samples cited in the following Tables were more comprehensive in that they were based on national probability samples (Sorenson, 1973; Zelnick and Kantner, 1972), or approximated them (Hunt, 1974). Kinsey's et al. (1953) data was collected through personal interviews. The data of the other studies cited in the Tables was collected by questionnaires. Sorenson's (1973) research included married adolescents. The figures cited from the other studies were based on unmarried subjects. The ten married women between 18-21 years in the present study were included in the percentages which follow.

As can be seen from Table 12, the present sample was very similar to previously researched samples in the incidence of types of sexual experience the women had had. Sorenson (1973) found an association between masturbation and intercourse. He found that girls having intercourse reported masturbating twice as often as girls who were not currently having intercourse (Sorenson, 1973, p. 133). The present study found that having ever had intercourse and

Table 12. Incidence of types of sexual experience of 18-21 year old women in this sample and of previous reports of similar aged women.

Percentages Reported by Previous Studies		Percentages of Present Sample Age Range 18-21 N=845-6 ¹
Kissing ^a	100	99.5
Stimulation of breast ^D	98	85.7
Manual stimulation of		
Manual stimulation of genitals ^C ,d	88-91	77.5
Cunnilingus ^e	69	53.3
Coitus ^f , g	45-46	52.4
Masturbation		40.4

^aKinsey <u>et al</u>. (1953), p. 280. Percentage based upon figures reported for "simple" kissing of women with 13-16 years of schooling.

bSorenson (1973), p. 171. The percentage based on what he called "sexual beginners" (women without coital experience). Sorenson did not specify whether the stimulation was with or without clothing. This study specified without clothing. His percentage based on women aged 13-19.

Ckinsey et al. (1953), p. 234. Of women aged 16-20, 88% "actively" petting.

 $^{^{}m d}$ Hunt (1974), p. 136. Of women aged 18-24, 90% "actively" petting.

Hunt (1974), p. 166. Percentage based on white males, aged 18-24, reports of having engaged in cunnilingus.

f Sorenson (1973), p. 187. Percentage based on women ages 13-19.

⁹Zelnick and Kantner (1972), p. 360. Percentage based on women ages 15-19.

hSorenson (1973), p. 129. Percentage based on women ages 13-19.

Two subjects omitted data on all types of sexual experience except coitus. One subject omitted data on coitus. The percentages are based on nonmissing data.

having ever masturbated were highly dependent (18-21 year old women χ =23.64, df=1, n=845, p < .00001, ψ' =.167). However, Cramer's phi did not show a strong association.

Hunt (1974) found that between the ages of 18-24, substantially more than 50% of the unmarried women he studied had "experienced orgasm through petting techniques in the past half year (p. 136)." Hunt (1974) also found that three-quarters of his young unmarried females had experienced orgasms in their premarital coital relationships.

Table 13. Percentages of 18-21 year old women reporting having experienced orgasm through types of sexual experiences.

Type of Experience	Percentage	Na
Kissing	3.52	818
Stimulation of breast (without clothing)	10.74	701
Manual stimulation of genitals (without clothing)	56.38	632
Cunnilingus	54.03	427
Coitus	77.29	420
Masturbation	57.68	318

^aTwenty-three 18-21 year old subjects omitted data on orgasm through types of sexual experience. The percentages are based on nonmissing data.

As can be seen from Table 13, these percentages are similar to the percentages found in the present study. The percentage of women reporting having experienced orgasm through masturbation is different from previous studies. Sorenson (1973) found that 71% of the 13-19 year old female adolescents in his sample had experienced an orgasm through masturbation sometime during the preceding month (p. 134). However, only 57.7% of the 18-21 year old women in the present study had ever experienced an orgasm through masturbation.

As can be seen in Table 14, the number of sexual partners reported by the women in their sexual histories is roughly comparable to previously researched samples. The vast majority had had few partners and are probably what Sorenson (1973) terms "serial monagamists (p. 219)." Fewer subjects in the present sample reported having had 7-15 partners than in the Sorenson (1973) study. But the number of subjects having had 16 or more partners was similar.

Likewise, as can be seen in Table 15, the subjects in this sample currently having intercourse reported having coitus about as often as found in a previous study.

Table 14. Number of partners in coitus the 18-21 year old women in the present sample reported as compared to previous samples of similar aged subjects.

Number of Partners	Reported by Sorenson ^a	Reported by Zelnick and Kantner	Present Sample 18-21 Years N=353 ^C
1	50%	59.9%	48.2%
2-3	22	24.1	30.3
4-6	14	16.0 ^e	13.4
7-15	12		6.6
16 or more	2		1.8 ^d
	100%	100.0%	100.3%

^aSorenson (1973), p. 433. Percentage based on women ages 13-19.

^bZelnick and Kantner (1972), p. 365. Percentage based on women ages 15-19.

^CNinety subjects did not report how many partners they'd had. Percentage based on nonmissing data.

d Inexact total due to round-off error.

^eZelnick and Kantner (1972) data based on his percentages for whites only. He found 9.2% had had 4-5 partners and 6.8% had had 6 or more partners. These percentages were summed for ease of visual presentation.

Table 15. Frequency per month of engaging in coitus of 18-21 year old women currently sexually active in the present study as compared to a previous study of similar aged subjects.

Frequency per Month	Percentage Reported by Sorenson ^a	Percentage in Present Study ^b (18-21) N=297
1	9	11.1
2	11	11.4
3	11	7.7
4	13	8.1
5-8	15	21.6
9-12	15	16.8
13-19	10	12.7
20 or more	16	10.2 ^c
	100%	99.6%

^aSorenson (1973), p. 271. Percentages based on monogamist data since it most closely approximates relationship type data of the present study (i.e., the number of subjects reporting "going steady"). Sorenson data based on 13-19 year old subjects.

Fifty-seven subjects omitted data on frequency per month. Percentages based on nonmissing data.

CInexact total due to round-off error.

As can be seen in Table 16, about as many subjects in the present study stated they use contraceptives as in a previous study. However, the types of contraceptives used differs drastically. Many fewer subjects in the present study reported they rely on "less safe" methods of birth control, such as withdrawal and rhythm. More subjects reported taking birth control pills than in any previous study.

Summary of the Data

The hypothesis that women who report having an orgasm during their last coital experience have more fulfillment of interpersonal needs than women reporting no orgasm was soundly supported. The effect held for women with most ranges of percentage of orgasm attainment (25-100%). The women not experiencing an orgasm during their last coital experience, and reporting very low or very high percentages of orgasm attainment (0-24% or 75-100%), had greater dispersion of interpersonal gratification scores.

The amount of time women reported having engaged in intercourse was not related to their interpersonal gratification scores; however, women who had engaged in

Table 16. Contraceptive use by 18-21 year old women in the present study who had intercourse as their last sexual experience as compared to the contraceptive use of a previous study of similar aged women.

Contraceptive	Percentage Reported by Zelnick and Kantner ^a	Percentage in the Present Study (18-21) n-354
None	16.0	20.5
Birth Control Pills	21.0	57.3
Foam	2.3	1.8
IUD	.5	3.2
Diaphragm	1.4	.6
Condom	18.3	10.8
Douche	2.4	0.0
Withdrawal	27.7	.3
Rhythm	2.2	.6
Combination (e.g., condom and foam)	10.7 ^a	5.0
(11g1, 11mm,	102.5%	100.1%

^aZelnick and Kantner (1972), p. 369. Percentages for whites only, women aged 15-19. Zelnick and Kantner asked their subjects whether or not they used contraceptives "never," "sometimes," "always." The percentages they reported for most recently used contraceptive were based on subjects using contraceptives and excluded the 16% never using contraception. The percentages they reported for most recently used contraception were modified here to include the 16% never using contraceptives for comparability. The 102.5% total was over 100% because of the arithmetic operations performed.

bTwelve subjects did not report whether or not they used contraceptives. Percentages based on nonmissing data.

intercourse less than one month were found less likely to experience orgasm. There was no association between experience and orgasm for women having had intercourse longer than one month.

Involvement in a relationship (See Sexual History Form) and orgasm during last coitus were independent. In addition, the types of relationships the women reported having and orgasm during last coitus were not associated. The duration of time women who were "going steady" reported they had been involved in the "steady" relationship was not associated with orgasm during last coital experience or the women's reported percentages of orgasm attainment during coitus.

The interpersonal needs most frequently scored were Affiliation, Succorance, and Nurturance. There was no difference in the mean number of words used in the coital descriptions of orgastic and non-orgastic women, nor was there any difference in the mean time elapsed since last coitus of orgastic and non-orgastic women. The results are most appropriately generalized to women 18-21 years of age who consider themselves "going steady."

The subjects in the present study were compared to previously researched samples based on national probability

sampling. The incidence of types of sexual experiences, orgasms through these sexual experiences, frequencies per month, and number of coital partners subjects in the present study reported was similar to previous studies. The number of subjects using contraceptions was similar to previously researched samples, but the type of contraceptives used differed.

DISCUSSION

The results of this study clearly indicate some association of fulfillment of interpersonal needs and orgasm. The direction of causality cannot be empirically ascertained at this point. Women having orgasms may perceive that their interpersonal needs have been met or fulfillment of interpersonal needs may be necessary for orgasm.

Comparisons can be drawn between the results of the present study and Fisher's (1973) study. Fisher (1973) found that low orgasmic women were concerned about object loss, chronically preoccupied with the possibility of being separated from persons loved and valued. One explanatory framework he proposed he derived from psychoanalytic concepts about separation anxiety. Separation anxiety, he says, may be a fear of the recurrence of the same build-up of tension which orginally occurred when the person responsible for gratification of needs (e.g., mother) left. He points out that sexual excitement is a build-up

of tension, and postulates that the low orgasmic woman may fear sexual excitement because it represents the loss of love objects.

Fisher's (1973) explanation focuses on the build-up of tension feared by the low orgasmic woman. However, if the emphasis is changed, to the fear of absence of a "love object," his explanation of his results and the results of the present study are parallel. Apropos to this point is the following:

Certain neurotics who are still afraid of the experience of their own excitement, at least beyond a certain intensity of this excitement, are so not because of a primary 'anxiety of the intensity of their own excitement' but because other types of anxiety have caused them to block the natural course of their excitement, turning pleasure secondarily into intense displeasure.' This leads sooner or later to the fear that external means of satisfaction might possibly fail to arrive. It is the 'fear over loss of love' or rather loss of help and protection. This fear is more intense than it would be if it represented only a rational judgment about real danger because the early self-esteem is regulated by means of external supplies so that a loss of help and protection means also a loss of self-esteem (Fenichel, 1945, p. 44).

Rather than a fear of build-up of uncontrollable tension, the individual with separation anxiety primarily fears a lack of satisfaction of needs, a fear of loss of love and help and protection. In other words, the low orgasmic

woman fears a loss of interpersonal supplies--a lack of gratification of interpersonal needs.

Fisher (1973) derived another explanation of his results from the observation that the normal state of consciousness is affected by a build-up of sexual excitement (Kinsey, et al., 1953; Masters and Johnson, 1966). He proposed that arousal diminishes awareness of external stimuli and that "objects" may become psychologically more distant. Hence, he speculated that the woman fearing "object loss" would fear sexual excitement which, psychologically blunts "objects."

The second explanation can also be used to explain the results of the present study. The only assumption necessary to link the results of the present study and Fisher's (1973) explanations of his results is the meaning of "loss of objects" feared by the woman with separation anxiety. The fear of "loss of objects" can easily be viewed as fear of "loss of objects" which satisfy interpersonal needs.

Both of Fisher's (1973) explanations of his results neatly fit the present study with only a slight modification. The modification is the significance of fear of "object loss" in low orgasmic women. If the significance of fear of "object loss" assumed here is accepted, the

meaning of the results of both studies are parallel. Interpersonal factors and orgasm are associated.

As Fisher (1973) points out, a fear of "object loss" does not necessarily exemplify a personality type, and in the present study, the interpersonal needs of a woman in her sexual experiences are not necessarily an indication of her personality type. Interpersonal needs may vary from sexual experience to sexual experience and the needs salient in a woman's sexual experiences may not typify her non-sexual interpersonal interactions.

Hence, Fisher's (1973) findings about personality traits can be put into context. Fisher (1973) found that anger, coping with anger, dominance, sociability, cheerfulness, desire to help others, achievement, and activity-passivity dimensions of personality were not significantly related to high- or low-orgasm capacity. In addition, the fulfillment of interpersonal needs (not just the presence of the needs) which this study found, seems to be an important factor in linking interpersonal interactions and orgasm.

Fisher (1973) had the women in his study write about their sexual experiences. He characterizes them:

1. Some women present intercourse primarily as a great adventure in which there are new

experiences and sensations to be sampled. Emphasis is placed upon the range of positions used, the novelty of some of the sensations aroused, and the potential for unlimited exploration by each spouse of the other spouse's body.

- 2. Related to this first theme is the perception of intercourse as a means of attaining ecstasy or going on a 'trip' in which there are strange sensations and loss of identity. Included in this category are those who wish to ascribe a religious or mystical quality to sexual arousal.
- 3. For some women intercourse is an opportunity to prove their superior prowess in an activity that is highly valued. They dwell on their responsiveness, their ability to attain multiple orgasms, and the fact that they exceed their husbands in sexual capacity.
- 4. Another theme found in the intercourse descriptions portrays intercourse primarily as an opportunity for intimacy and blending oneself with a sex partner. Much is said about closeness, skin contact, cuddling, and feeling unbelievably united to another human being. The process of joining with someone is depicted as comforting and anxiety allaying.
- 5. A troubled martyred stance appears in some. The women in this category see intercourse as either painful or unpleasant. They picture themselves as victims of an inability to respond adequately to sexual stimulation. They dwell on their irritability during intercourse and their anticipation of ultimate frustration.
- 6. One interesting group characterizes sexual excitement as almost too intense to tolerate. They refer to their state of sexual arousal as painfully intense and suggest that they can barely control the tension that builds up Reference is also made to excited body areas feeling 'sore' and oversensitive. Sexual excitement seems to be regarded as a force greater than self, which has potential overwhelming and disorganizing properties.
- 7. There are also those who adopt a no-nonsense 'businesslike' attitude. They describe

intercourse as a routine, well-practiced procedure that provides adequate gratification, but which is simply one of a number of other important like activities. Several of the women who conveyed this idea indicated that shortly after intercourse they often resume some household task or work that needs to be done.

8. Those who experience intercourse as a reaffirmation of feminine identity should also be mentioned. They speak of how 'womanly' they feel during and after sexual arousal. They experience sexual arousal as a demonstration that a man has accepted them in the role of 'real' woman (Fisher, 1973, p. 214-215).

The themes were similar in the present study. Although actual frequency counts were not performed, even a cursory analysis of the data shows that the perception of the intercourse as an opportunity for intimacy and blending oneself with a sex partner was the most common theme. Sex as a force greater than oneself with potential disorganizing properties was the least common description. However, the range of themes Fisher (1973) found was represented in the present study. In addition, other themes were present which were not captured by Fisher's (1973) descriptions. Several women viewed intercourse as a means by which they could be taken care of in a tender fashion. Several other women perceived intercourse as a gift to their partners.

It is important to remember the measure of arousal used (i.e., orgasm), and the method of deriving fulfill-ment of interpersonal needs. The results of this study, cannot be validly compared to studies using other measures. Orgasm, as Fisher (1973) has demonstrated, is not equivalent to satisfaction with a sexual experience. The interpersonal gratification scores at times were discrepant from what would have been expected from the women's statements about whether they liked or disliked their experiences.

<u>Interpersonal Gratification</u> and Other Variables

The lack of significant difference of the ages of the women in the coitus-last orgasmic and non-orgasmic groups suggests that no biases were introduced by inadvertently having the older subjects in the orgasmic group and the younger ones in the non-orgasmic group. Kinsey's et al. (1953) finding of a correlation of age and decade of birth with orgasm would have made the interpersonal gratification effect difficult to interpret if the subjects had been stratified in this manner. The difference in variance

of the ages of the orgastic and non-orgastic coitus-last women seems due to a lack of random sampling.

The distribution of reported percentage of orgasm attainment in this sample was bimodal. Only 28.5% of the women reported experiencing orgasms 25-74% of the time; whereas, thirty-three percent of the women reported experiencing orgasms 0-24% of the time and 38.3% reported experiencing orgasms 75-100% of the time. Hence 71% of the subjects were on the upper and lower ends of reported percentage of orgasm attainment. Kinsey et al. (1953) found that 36% of the married women he sampled reported experiencing orgasm 0-29% of the time during their 1st year of marriage and 39% reported experiencing orgasm 90-100% of the time. Though the populations are not strictly comparable, the similarity in distributions is apparent. Orgasms may be consistently experienced or not, with less variability than is usually considered.

The finding that the mean interpersonal gratification of orgasmic coitus-last subjects reporting low percentages of orgasm attainment (0-24%) was not significantly different than nonorgasmic coitus-last subjects is interesting.

The orgasmic coitus-last women in this range of orgasm attainment could have relatively low gratification of interpersonal needs and still experience an orgasm; the nonorgasmic coitus-last women could have relatively high gratification of interpersonal needs and not report an orgasm. Situational interpersonal factors would appear to make less difference in this low orgasm attainment group. Unfortunately, the design of this investigation prohibits evaluating such possible explanation of female hyposexuality as oedipal ties, penis envy, separation anxiety, negative social learning and hormonal factors. Further research is necessary to clarify the result.

One puzzling result was the dispersion in interpersonal gratification scores of the women reporting very high (75-100%) or very low (0-24%) percentages of orgasm attainment. The variances of the orgasmic and nonorgasmic coitus-last women were significantly different in these groups. The women not experiencing orgasms had more extreme scores. No explanation is immediately apparent which accounts for the significant differences in variance of both the high and low percentage of orgasm attainment groups.

The data on presence or absence of relationships, types of relationships, and duration of relationships clearly augments the need to study sexual behavior situationally. Since adequate interpersonal gratification is the best predictor of orgasm, assumptions which devalue the interpersonal gratification possible with "one night stands" should be abandoned as well as the assumptions about the interpersonal fulfillment of women with relationships of long duration. Gross categorizations of relationships seems unfruitful.

This investigation only evaluated a subset of the domain of interactions possible between people. However, every category of interpersonal needs received some scorings. While more women were concerned with affiliative, succorant, and nurturant themes, consistent with sex role learning (Apperson, 1973), to assume that certain needs (e.g., aggression) do not belong in bed certainly tidies up analysis of interpersonal interactions but does not elucidate them. In addition, assumptions about which interpersonal needs are appropriate in a sexual context seem unwarranted and moralistic.

The data on number of words used in the coital descriptions indicates that the interpersonal gratification

scores were not subject to biases by orgasmic status. In particular, the women who were orgasmic did not tend to write long reports and the inorgasmic women did not tend to write short ones. In addition, the mean time elapsed since coitus indicated that biases which were a result of hazy or accurate recollection due to time were not introduced by orgasmic status.

Methodological Considerations

It can be questioned whether because subjects volunteered for a study dealing with sexual matters, the subjects were a biased sample. However, according to Fisher (1973), Diamant, Martin, Marcuse, and Siegman (1956) have not found any substantial personality differences between persons who volunteer for a "sex study" and those who do not.

The women in this study reported whether or not they experienced an orgasm during their last sexual experience and their percentages of orgasmic attainment. It is not known whether or not the women were lying. The women could have felt the need to lie for a variety of reasons. They might have lied to boost their self-esteem if consistently inorgasmic. They may have felt that they were

devaluing their interpersonal relationship if they didn't experience an orgasm and lied to "prove their love." They may have been orgasmic and reported being inorgasmic feelit immoral to "enjoy" coitus. However, it should be noted that criticisms of studies on the grounds of subject lying are appropriate to all sex studies not monitoring subject reports with electrophysiological recordings.

Some subjects may not have lied, but their records could have been distorted because of ignorance. They may not have known what the experience of orgasm feels like and reported an orgasm while being inorgasmic simply because of their lack of knowledge. Not knowing what an orgasm feels like was probably the case for the three coitus-last subjects who did not report whether or not they experienced an orgasm. The orgasmic status of two subjects in the present study is dubious. These women indicated they experienced an orgasm but wrote comments about the nature of the experience which casts doubt on the probability of their having experienced an orgasm. One of these women wrote, "orgasm equals being elated and happy because he's the one you're with." The other woman wrote, "I enjoyed it, therefore I assume I had an orgasm."

If the present investigation had included a request of the women to describe what their orgasms felt like (if they experienced them) the quality of this data could have been improved. Lying could not have been controlled for, but mistakes due to ignorance about the nature of an orgasm could have been estimated.

This investigation could also have been improved if the Sexual History Form had been modified. The nature of the women's sexual experience should have been randomized. In other words, rather than starting with kissing and ending with masturbation, the order of these experiences should have been randomly selected. The women may have interpreted an order and felt reluctant to mark that they had experienced what they perceived the investigator as considering progressively more "loose" sexual behavior.

The differences in sizes of the groups when the data was collected may have influenced the candor of the subjects in unknown ways. Some subjects may have felt "more anonymous" in a large group and have given the sexual information requested more freely. Other subjects may have felt more comfortable with less women around them. The sex of the experimenters administering the forms may have influenced the subject's responses. Some women might

have felt more comfortable with a female experimenter and others with a male. In addition, there may have been an interaction of size of the groups tested and sex of the experimenter. Since no estimate of the candor of the women was available, these effects cannot be ascertained.

It has been repeatedly pointed out that the measure of orgasm as one aspect of sexuality is not appropriately generalized to all other aspects of sexuality. In addition, trait analysis of personality and orgasm has been shown to be largely unfruitful. However, it should also be noted that orgasm as a dependent measure simply assumes a phenotypic identity between individuals. No investigations have found a genotypic identity of orgasm. The factors leading up to the same result (i.e., orgasm) may be entirely different for individuals (e.g., genetic, physiological, psychological).

Directions for Future Research

More research needs to be done on the validity of the measure used in this study. Research should also be done on different samples of subjects, particularly subjects married, older, and of different socioeconomic statuses and educational levels.

The consistency of interpersonal needs from sexual experience to sexual experience would also be interesting to ascertain as well as the relationship, if any, between personality traits of women and their interpersonal needs expressed in coital relationships.

Additionally, the measure of interpersonal gratification used here could be fruitfully related to other measures of sexual behavior such as degree of strength of orgasm, satisfaction with coital experiences, frequency of coitus, etc.

Of particular interest would be a situational approach to the relationship between the fulfillment of interpersonal needs of men and measures of their sexual behavior (e.g., erection, orgasm, premature ejaculation). Also the type of interpersonal needs salient for men during any particular coital experience would be useful to establish for comparison with women.

Speculative Theory of Female Sexual Behavior

Drawing many concepts from a psychodynamic approach a model concerning female sexual functioning is developed here. The model is highly speculative and syncretic. It

is presented, not because it explains the data in the present study in an empirical sense, but as a model with hypotheses to be used in further testing.

Freud laid the groundwork for combining interpersonal and sexual behavior. He recognized "that human sexuality is by no means limited to the impulses and actions that lead more or less directly to sexual intercourse (Fenichel, 1945, p. 55)." In addition, Freud explained many phenomena as sexual which had not previously been recognized as having any connection with sexuality.

Early in his theorizing Freud postulated the "ego instincts" and sexual instincts. The "ego instincts" were countersexual forces such as anxiety, guilt feelings, and ethical ideals of the personality which served the purpose of preserving the individual. Later, Freud viewed the repressing and repressed (the ego and id) as having evolved from the same source--the sexual instincts. Freud felt that the sexual instincts had to be tamed in order for society to develop. He postulated that sexual needs, instead of uniting men, separated them.

The instincts were viewed as "a borderline concept between the mental and physical; "phenomena of instincts can be considered from the physical aspect by examining

the source of the instinct, or they can be considered from the mental aspect by examining the drive and the resultant psychological phenomena (Fenichel, 1945, p. 54)." He recognized that affects can effect bodily changes (e.g., affect equivalence, conversion symptoms). He postulated that, in general, "excitement and satisfaction are phenomena that express themselves in a physical way (Fenichel, 1945, p. 216)."

It is proposed that any particular coital experience reflects an individual's physiological and emotional state at that time. There may or may not be consistency in these states from one coital experience to another. The physiological basis of coital behavior is presumed to be mediated by hormones, particularly androgen (Whalen, 1966; Money, 1961; Waxenberg et al., 1959; Foss, 1951; Salmon and Geist, 1943; Carter et al., 1947).

Following Whalen (1966), arousal is distinguished from arousability:

The former refers to the momentary level of sexual excitation of an individual, maximal arousal characterized by the occurrence of orgasm. Arousability is the characteristic rate of approach to orgasm as a result of sexual stimulation of an individual. Arousability is determined not only by the amount of increment in arousal produced by sexual stimuli, but also

by the absolute number of erotic stimuli which simultaneously arouse the individual (p. 84).

Hormones are hypothesized to affect arousability by altering the threshold for responsiveness to erotic stimuli. According to Whalen (1966), current data does not allow precise formulation of physiological relationships between hormones and arousability. However, he hypothesizes:

hormones act centrally be determining the amount of change in arousal produced by a given stimulus, and act peripherally by determining the amount of receptor response to a stimulus, and/or the rate of adaptation of the receptor (in Barnhardt and Lieberman, 1971, p. 84).

It is this author's premise that sexual stimulation is physical stimulation, occurring within the context of what the individual perceives (unconsciously, preconsciously, or consciously) to be a sexual situation, which satisfies interpersonal needs. Stimulation may be of one or more of the tactile, auditory, and visual receptors. In this view, both physical stimulation of erogenous zones and fulfillment of interpersonal needs is postulated to have arousing physiological effects, similar to Freud's view of the changes which can be effected by "mental phenomena." This interpersonal "stimulation" is considered

usually insufficient for maximal arousal, physical stimulation also being considered necessary. Physical stimulation is deemed intrinsically rewarding.

If it is assumed that fulfillment of interpersonal needs is intrinsically rewarding, similar to physical stimulation, a difficulty is encountered. Stated baldly, why aren't people continually aroused in their interpersonal interactions? One could speculate that they are and are not attending to it. This arousal would be similar to that derived from tactile stimulation occurring outside the context of a sexual situation. For instance, in this braless age, soft blouses rubbing against nipples may elicit nipple erection, but few women automatically rush off to copulate when this occurs. However, a more feasible approach is the postulation of ego mediation and a taming of the sexual instincts, as Freud suggested. The major mode of this taming of sexual instincts is postulated to be ego defenses which ward off drive; the situations in which the appropriateness of sexual activities are learned is postulated to derive from the individual's developmental learning background.

This model assumes that individuals vary in their arousability. However, a certain amount of physical and

interpersonal stimulation is necessary for maximal arousal (i.e., orgasm). It is also assumed that not all interpersonal needs are consciously or preconsciously perceived. Therefore, women will perceive the fulfillment or lack of fulfillment of interpersonal needs solely in terms of the needs they are aware of. A woman's perception of her partner is therefore neither strictly dependent on her partner's personality characteristics in his interaction with her, or on the "objective" interaction between them.

Because of the above assumption, a woman may have had certain interpersonal needs met which were outside of her awareness, had an orgasm, and dislike her partner because he did not fulfill consciously perceived interpersonal needs. An example is the wife of an alcoholic. She may perceive that her husband is not nurturant or caring with her and be dissatisfied with him, but at the same time, get sufficient gratification in her need to be dominant or behave in a punitively aggressive fashion, berating him for his drunken, nonnurturant behavior, to have an orgasm.

Likewise, a woman not having an orgasm because of insufficient fulfillment of unconscious needs, may perceive that her partner has satisfied all the interpersonal needs

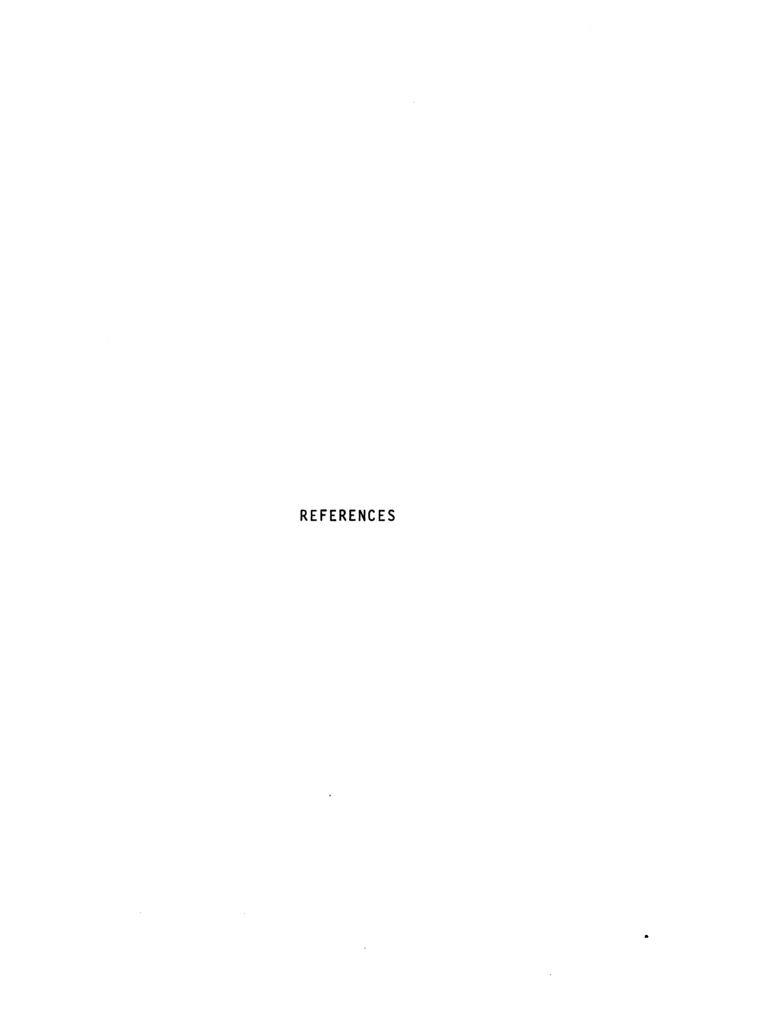
she is aware of. For instance, a woman who consciously desires a relationship with strong affiliative, equalitarian features may unconsciously need a relationship which satisfies strong passive dependent strivings or may wish to be dominated.

Interpersonal needs are assumed to derive from a woman's developmental background. The needs a woman is aware of are dependent upon her defensive and character-olotical structure. It should be stressed that in this model all women have needs or drives the preferred aims and objects of which they are not aware of because awareness would promote too much anxiety. It is also assumed that the interpersonal needs salient for an individual máy vary from sexual situation to sexual situation.

Interpersonal needs are postulated to be expressed and fulfilled in both direct and indirect ways. In particular, identical forms of techniques of foreplay may symbolize for women a variety of interpersonal needs, and the same forms of stimulation may vary in terms of their symbolic interpersonal significance from sexual experience to sexual experience for an individual woman.

The emotional and physical state of the individual upon which both physical and interpersonal stimulation

operate, is assumed to be mediated by anxiety or lack of anxiety about sexual behavior, and anxiety or lack of anxiety about the expression of interpersonal needs, both of which are presumed to be learned within the context of the individual's cultural mileu. According to Masters and Johnson (1966), "Anxiety inhibits sexual arousability in that it involves the sympathetic branch of the autonomic nervous system, whereas, sexual arousal involves the parasympathetic branch of the autonomic nervous system before orgasm, and the sympathetic branch only later (in Paul. 1973, p. 2)." If anxiety occurs, it is assumed that defenses operate in the service of reducing that anxiety, and that these defenses may or may not be effective. The standard Freudian defenses: repression, projection, reaction formation, negation, isolation, undoing, reversal, regression, and sublimation (Mahl, 1971) are those defenses are those defenses assumed to operate in the control of anxiety.



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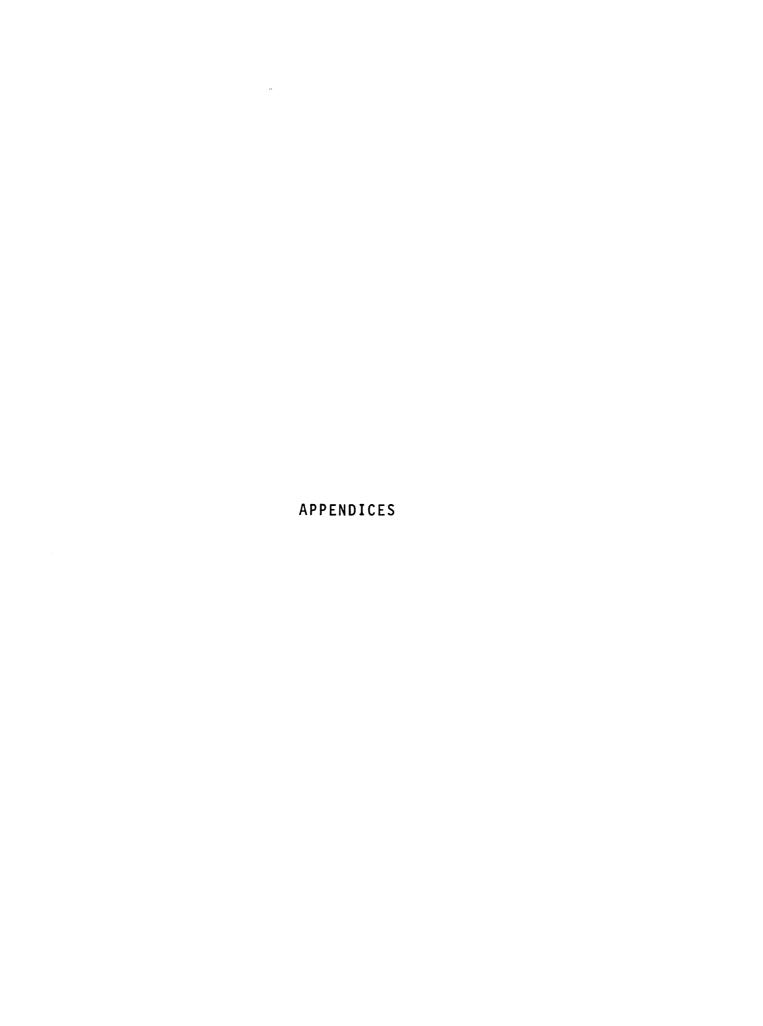
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APPENDIX A

(Sexual description form)

In the space below please describe your <u>last</u> sexual experience. Please include your thoughts and feelings about this experience. Was intercourse involved (yes/no). Was this experience with a male or female. Approximate time elapsed since the experience you are describing (). Your partner's initials ______. Did you experience an orgasm (yes/no).

(sexual history form)
Age
Are you married (yes/no). If yes, how long have you been married What are your husbands initials
Are you currently unmarried but living with someone (yes/no). If yes, how long have you been living together Do you plan to be married (yes/no). If yes, do you have a date of marriage tentatively planned (yes/no). When Your partner's initials
Do you currently have a "steady" boyfriend (yes/no). If yes, how long have you been involved with each other Do you plan to be married (yes/no). If yes, do you have a tentative date of marriage planned (yes/no). When Your partner's initials Are you involved in a relationship that has not been described above (yes/no). If yes, please briefly describe
it: Check which of the following you have experienced:
Akissing Bbeing stimulated on the breast by someone else (without clothing) Cbeing stimulated around and in your vagina manually by someone else (without clothing) Doral stimulation of your vagina Eintercourse (penetration of vagina by penis) Fmasturbation
Did you experience orgasm during any of the activities (yes/no). If yes, which: A B C D E F If you have been engaging in intercourse, how long would
vou estimate vou have been so doing . How many

partners in intercourse	would you es	timate you'v	e had
How many time	s per month	would you es	timate
you have intercourse now		If you	have ex-
perienced orgasm during	intercourse,	what percen	tage of
the time would you estim	ate you have	orgasm duri	ng inter-
course now	Do you use	contracepti	ves (yes/
no). If yes, what kind?			·



(definitions of interpersonal needs)

Succorance

To have others provide help when in trouble, to seek encouragement from others, to have others be kindly, to have others by sympathetic and understanding about personal problems, to receive a great deal of affection from others, to have others do favors cheerfully, to be helped by others when depressed, to have others feel sorry when one is sick or hurt; to solicit sympathy, affection, or emotional support from others.

Aggression

To engage in behaviors which attack or hurt others; to tell others off when disagreeing with them, to get revenge for insults, to become angry, to blame others when things go wrong.

Dominance

To argue for one's point of view, to be regarded by others as a leader, to make decisions, to persuade and influence others to do what one wants, to supervise and direct the actions of others, to be influential and controlling in individual relationships.

Achievement

To do one's best, to be successful, to accomplish tasks requiring skill and effort, to be a recognized authority, to do a difficult job well, to solve difficult problems and puzzles, to be able to do things better than others.

Nurturance

To engage in behaviors which extend material or emotional benefits to others; to help friends when they are

in trouble, to treat others with kindness and sympathy, to forgive others, to do small favors for others, to be generous with others, to sympathize with others who are hurt or sick, to show a great deal of affection toward others, to have others confide in one about personal problems.

Affiliation-Intimacy

To be loyal to friends, to do things for friends, to share things with friends, to do things with another person rather than alone, to form strong attachments.

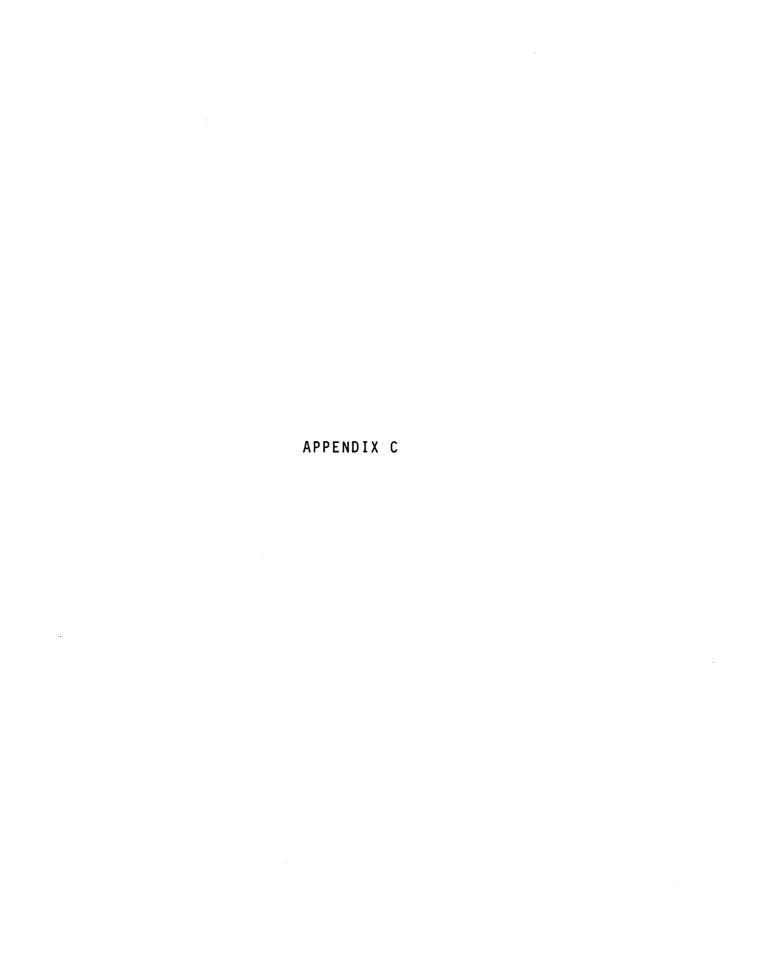
Exhibition

To behave in such a way as to elicit the immediate attention of others; to talk about personal adventures and experiences, to have others notice and comment upon one's appearance, to be the center of attention.

Deference

To seek and sustain subordinate roles in relationship with others; to get suggestions from others, to find out what others think, to follow instructions and do what is expected, to praise others, to tell others that they have done a good job, to accept leadership by others, to conform to custom and avoid the unconventional, to let others make decisions.

From Apperson (1973), p. 136-137.



Scoring Instructions

Divide the protocol into meaningful phrases. Compare each phrase of the subject's protocol to the sentences in the scale. If any of the sentences in the scale are equivalent to what the subject is saying in her phrase, write above the phrase the category name, and the sentence number which is matched. For instance, if the subject says, "I told Joe all my thoughts and feelings," write above the sentence Aff la.

Context in the protocol is utilized. For example, if the subjects say, "It was good," find out what "it" refers to from the context of her record and score if appropriate. If the subject is speaking about a general situation or a generalized other, score that phrase as if the subject were speaking about herself. If the subject uses serial adjectives, nouns, or verbs with the same theme, score each adjective, noun or verb. For instance, if the subject says, "he made me feel wanted, needed, important, whole," write above the subject's sentence Suc 4a x 4. Score each phrase for one and only one category, except the examples provided under "conventions of scoring."

Conventions of scoring

- 1. The distinction between Nur 7a and Aff 2a and 6a is that Nur 7a is used when intercourse is a gift to the subject's partner.
- 2. Score, "We plan to be married," and "We are going steady," Aff 6a. However, don't score, "My fiance and I," or "My steady and I." The latter are usually used in place of the subjects partner's name.
- 3. Score, "I feel sex is okay if you love each other,"

 Aff 6a.
- 4. Do not score talking or doing activities together (e.g., taking a shower, lying together) unless the interpersonal needs involved are clear and strong.
- 5. Score context sparingly. For example, if no interpersonal needs were scored throughout the subject's protocol, and then the subject says, "It was beautiful," at the end, "It was beautiful," might be scored depending on the context, but you should not then score other phrases not previously scored.
- 6. Score, "I love him and he loves me," Aff 6a and Suc 2a. Score "We love each other," Aff 6a.
- 7. Don't usually score sexual techniques, unless it's very, very clear what those techniques mean to the

subject interpersonally.

8. Score, "We both like trying to please each other,"
Suc 3a and Nur 2a.

"A" sentences are equal to +1 and indicate satisfaction of a particular need. "B" sentences are equal to -1 and contain both unfulfilled needs (e.g., I didn't feel taken care of by my partner) and negated needs (e.g., I don't like talking about my sexual experiences). The assumption is that a negated need is unacceptable to the subject and was not fulfilled in the experience the subject is describing.

Algebraically sum the interpersonal needs. Count the number of words and divide into the summed needs. In this corrected total, a negative overall score indicates that the subject's interpersonal needs were unfulfilled. A positive score indicates that, overall, the subject's interpersonal needs were fulfilled. The corrected total is a correction in order that the magnitude of the subject's score is not simply a function of brevity or length of her record.

Interpersonal Gratification Scale

AFFILIATION

- a. I shared my feelings and thoughts with my sexual partner.
 - b. I didn't share my feelings and thoughts with my partner.
- a. I wanted sexual relations because I was experiencing warm and friendly feelings toward my partner.
 - b. I wanted sexual relations, but not because I was experiencing warm and friendly feelings toward my partner.
- a. We shared an (intense), intimate experience through our sexual relations.
 - b. We didn't share an (intense), intimate experience through our sexual relations.
- 4. a. I am loyal to my partner.
 - b. I am not loyal to my partner.
- 5. a. I prefer intercourse to masturbation as an outlet for my sexual tensions.
 - b. I prefer masturbation to intercourse as an outlet for my sexual tensions.
- 6. a. I feel a strong emotional attachment for my sexual partner.

- 6. b. I don't feel a strong emotional attachment for my sexual partner.
- 7. a. We share (many) other activities and this lessens
 my enjoyment of our sexual activities.

DEFERENCE

- a. I went along with my partner's desire for sex though I was not (originally) in the mood for it.
 - b. I couldn't go along with my partner's desire for sex because I was not in the mood for it.
- 2. a. He initiated the sexual relations.
 - b. I wanted him to initiate the sexual relations instead of me.
- 3. a. I like following his lead in sexual relations.
 - b. I wanted to follow his lead in sexual relations but couldn't.
- 4. a. My main interest was in pleasing him.
 - b. I couldn't please him.
- 5. a. I like to have sex the conventional way.
 - b. I don't like sex when it's in the conventional way.
- 6. a. I like following the guidelines for sexual technique.

- b. I don't like following guidelines for sexual technique.
- 7. a. I feel he is superior to me in (many) ways.
 - b. I don't feel he is superior to me.

AGGRESSION

- a. I felt a close link between sex and aggressive feelings.
 - b. I don't feel sexual when I am angry.
- 2. a. I got even with my partner for insulting or hurting me by either refusing sex when he wanted to or pushing sexual relations on him when he didn't want to.
 - b. I didn't get even with my partner by pushing sex on him or refusing to have sex with him even though he had hurt and/or insulted me.
- 3. a. Things went wrong. It was his fault.
 - b. Things went wrong. It was not his fault.
- 4. a. I felt sexually aroused when I was angry.
 - b. I don't feel sexual when I am angry (1 b).
- 5. a. I had fantasies of attacking or hurting him.
 - b. I didn't have fantasies of attacking or hurting him.

- 6. a. My aggressive urges were expressed in a satisfying way through our sexual relations.
 - b. My aggressive urges were unsatisfied in our sexual relations.
- 7. a. We tusseled around, kind of fighting each other in our sexual relations.
 - b. He didn't want to "play fight" with me.

NURTURANCE

- 1. a. I showed him a great deal of affection.
 - b. I couldn't show him much affection.
- 2. a. I helped him feel cared for.
 - b. I couldn't help him feel cared for.
- 3. a. I did small favors for him.
 - b. I didn't do any small favors for him.
- 4. a. I helped him feel at ease in our sexual relations.
 - b. I couldn't help him feel at ease in our sexual relations.
- 5. a. My partner was feeling down. I comforted him.
 - b. My partner was feeling down. I couldn't comfort him.
- 6. a. He confided in me and told me his troubles.
 - b. He doesn't confide in me or tell me his troubles.

- a. I tried to fulfill his needs (in every way I could).
 - b. I couldn't/didn't fulfill his needs.

DOMINANCE

- a. I experienced a feeling of power in possessing my partner sexually.
 - b. I felt powerless in my sexual relations with my partner.
- 2. a. Our sexual relations involve a pleasurable element of a "contest of wills."
 - b. The pleasurable element of a "contest of wills"was lacking in our sexual relations.
- a. Our sexual relations are a contest in which there
 is a winner and a loser.
 - b. I feel lost in the "contest" of our sexual relations.
- 4. a. I felt in charge of directing my sexual interaction with my partner.
 - b. I wanted to direct my sexual interaction with my partner but didn't.
- 5. a. I took the lead in initiating sexual relations.
 - b. I wanted to lead in initiating sexual relations but he did.

- 6. a. I persuaded him to go to bed with me.
 - b. I wanted to persuade him to go to bed but he persuaded me.
- 7. a. We had sexual relations because I wanted to have them.
 - b. We didn't have sexual relations though I wanted to very badly.

SUCCORANCE

- a. I felt secure in the close contact of our (sexual)
 relations.
 - b. I didn't feel secure in our (sexual) relations.
- a. My partner showed a great deal of affection toward me.
 - b. My partner didn't show much affection toward me.
- 3. a. I felt taken care of by my partner.
 - b. I didn't feel taken care of by my partner.
- 4. a. My partner was sympathetic and understanding toward me.
 - b. My partner did not understand or feel sympathetic toward me.
- 5. a. My partner does (little) things just to please me.
 - b. My partner doesn't do the little things I need to please me.

- 6. a. I like the warm comfortable feeling of being in my partner's arms.
 - b. My partner didn't want to hold me in his arms.
- a. My partner is someone I can count on in rough times.
 - b. I can't count on my partner during times of trouble.

EXHIBITION

- 1. a. I like him looking at my body.
 - b. I didn't want him looking at my body.
- 2. a. He noticed and commented upon my appearance.
 - b. He didn't notice or comment upon my appearance.
- a. I like talking about my sexual encounters and experiences.
 - b. I don't like talking about my encounters or experiences.
- 4. a. I am the center of attention with my partner.
 - b. I am not the center of attention with my partner.
- 5. a. I felt sexy and sophisticated.
 - b. I didn't feel sexy or sophisticated.
- 6. a. I undressed before him.
 - b. I didn't want to undress before him.

- 7. a. During sexual relations I am aware of the way I look and sound.
 - b. I don't want to think about the way I look and sound.

ACHIEVEMENT

- 1. a. I feel I am a very good lover.
 - b. I don't feel I am a good lover.
- a. I like to puzzle out or anticipate what will be most successful with my partner.
 - b. I am not very good in figuring out what will be successful with my partner.
- 3. a. I think I know a lot about sex.
 - b. I don't know very much about sex.
- 4. a. I feel I performed well sexually.
 - b. I don't feel I performed well sexually.
- 5. a. I feel I am more able to be a skillful sex partner than other people.
 - b. I don't feel I am more able to be a skillful lover than other people.
- a. I feel I have the skill and make the effort for successful lovemaking.
 - b. I don't feel I have the skill or make enough effort for successful lovemaking.

