



GRISS

The Golombok Rust Inventory of Sexual Satisfaction

TEST MANUAL

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Acknowledgements

For help in designing the blueprint we would like to thank Dr Michael Crowe, Dr Patricia Gillan and all at the Maudsley Hospital Sexual Dysfunction Clinic.

For administering questionnaires to their clients to establish the standardization sample thanks are due to Ian Bennun, Amanda Cole, Harry Czechowitz, Jackie Gerrard, Raymond Goodman, Waguih Guirguis, Peter Harvey, Rod Holland, Paul Hummel, Alan Ingram, Geoff Maccabi, Vincent McNevin, Sue Mumford, Cynthia Osborne, Roy Parsons and Margaret Watkinson.

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Published by the University of Cambridge Psychometrics Centre, Cambridge Judge Business School, Trumpington Street, Cambridge CB2 1AG, United Kingdom.

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1. Aims, applications and scope

1.1 The Golombok Rust Inventory of Sexual Satisfaction (GRISS) is a questionnaire for assessing the existence and severity of sexual problems. The GRISS produces an overall score for men and women separately, and twelve subscale scores, concerning impotence, premature ejaculation, anorgasmia, vaginismus, non-communication, infrequency, male and female avoidance, male and female nonsensuality, and male and female dissatisfaction (Rust & Golombok, 1985 & 1986).

1.2 The aim of the GRISS is to provide an objective assessment of the quality of a sexual relationship and of a person's functioning within it. The general approach adopted is a pragmatic one provided by practices in the treatment of sexual problems. That is, the domain of items in the GRISS covers those areas in which change would be expected following therapeutic intervention.

1.3 The GRISS is applicable to heterosexual couples and to individuals who have a current heterosexual relationship. It provides an overall measure, for men and women separately, of the quality of sexual functioning within the relationship. In addition, sub-scale scores can be obtained for various aspects of the relationship including the extent of communication, the extent of non-genital physical contact, dissatisfaction, avoidance of sex and the frequency of sexual activity. There are also sub-scales measuring specific sexual dysfunctions; impotence and premature ejaculation for men, and anorgasmia and vaginismus for women.

1.4 The major application of the GRISS is to research, for example, in the investigation of factors associated with sexual dysfunction or in assessing the efficacy of different forms of therapeutic intervention, including psychological, medical or pharmaceutical treatments, on a person's sexuality. For individual couples, the GRISS provides a profile of the pattern of

sexual functioning within the couple and for each partner. The profile is useful for quick diagnosis or for preliminary screening.

1.5 One advantage of the GRISS over other questionnaires of sexuality is its simplicity of administration. The respondent is asked to answer 28 questions on one sheet of paper within a standardized format. This makes it quick and uncomplicated for the researcher to use.

2. The design of the GRISS

2.1 The design and construction of the GRISS followed standard psychometric procedures (Rust & Golombok, 1999). From a psychometric point of view, a particular problem arises in looking at the sexual adjustment of a couple because the assessment involves not just one person, but two people, and their interaction. Unlike conventional psychometric tests, such as those of personality or achievement, responses from two individuals need to be taken into account in a single scoring. Furthermore, item analyses for the male and female partner of a couple cannot be carried out in isolation.

An obvious solution to this problem may be to treat the couple as a single unit, and to elicit a one-dimensional test score, such that a couple with a high score has a problematic relationship and vice versa. However, for a test to yield a single score the items must be parallel to some extent. That is, if the score on one item is increased there should be an increased likelihood that scores on the other items should change in the same direction. While this is often found with tests for individuals, in the present dyadic case the interaction effect within the couple makes it less likely. In a test of sexual functioning, a decrease in a problem for one partner is often associated with an increase in problems for the other. As discussed later, statistical factors did indeed make it difficult to obtain a score for the couple as a whole (section 2, paragraph 4). The position of each partner within the relationship needs to be expressed by two scores, one for the man and one for the woman. This does have the advantage that it is possible to administer the GRISS to only one partner, should

the other be unavailable, and in some studies only one of the partners is of interest. It must be remembered, however, that it is an assumption of the test that the man or woman does have a partner.

If respondents to the GRISS have more than one sexual partner, the test will be applicable as long as one of the partners is usually available. This is because 'the partner' defined within the questions is generalized and does not necessarily specify a particular person. However, the respondent will need to be consistent in considering which partner he or she is dealing with. In some cases where more than one partner is claimed the test may not be used because the potential partners are not available frequently enough.

2.2 It is not within the scope of the GRISS to deal with the full historical antecedents of the couple's current sexual state, or the entire sex histories of the individuals involved. Instead, the GRISS is concerned with the present state of the relationship. Nevertheless, temporal factors are important. Clearly, consideration of the most recent attempt at intercourse would be unsatisfactory as this may well have been atypical. There is a degree of natural variation in the quality of a sexual relationship, and this differs between couples. The length of the period to be considered should be sufficiently long - at least a number of weeks - to include such natural variation. The pilot version of the test specified that responses should be based on the previous month. However, analysis of the responses showed that this was too short a time and raised problems for some respondents. Occasionally the natural variation extended over a longer period, and some individuals encountered practical difficulties such as the temporary absence of the partner. Although longer time intervals were considered for the final version of the questionnaire, it was decided to use the term 'recently' rather than specify a fixed time period. This left the respondent to decide upon the most appropriate recent interval. Although this may raise questions in relation to comparisons between individuals it did seem the best solution for dealing with the type of subject matter involved.

2.3 The blueprint of the GRISS was drawn up by a 'think-tank' of sex therapists at the Maudsley Hospital Sexual Dysfunction Clinic in London. Many factors are involved in a satisfactory sexual relationship. These include motivational, behavioural, attitudinal and communicative aspects as well as specific problems. None of these operates alone and there is a plethora of first, second and higher order interactions. However, within the general area of sexual functioning, six areas of interest were specified:

(i) Whether or not sexual intercourse is actually occurring, and if so, how often. Frequency itself is not a major aspect of satisfaction but as a relationship improves or deteriorates the rate of intercourse is likely to increase or decrease respectively.

(ii) Whether or not the couple is satisfied with various aspects (frequency, variety, quality or practice) of their own or their partner's sexuality.

(iii) What problems, if any, are complained of in relation to their own or their partner's sexuality.

Attention was paid to the following issues:

Both men and women may have low interest in sex, and some indication of the level of interest is needed such as the extent of fantasy or thoughts about sex.

Does the woman have orgasms at all? If so, are these from masturbation, clitoral stimulation by the partner, or from intercourse itself?

Does the woman suffer from vaginismus? If so, is penetration possible at all (even if only with a finger)? Is there adequate lubrication? Is intercourse associated with any pain?

Does the man suffer from impotence? If so, how often? Does he get an erection at all and, if so, at what point during sex does it fail?

Does the man ejaculate prematurely? If so, is this before or after entry? What control does he have over the time of his ejaculation?

Are there any other problems, such as pain on ejaculation, delayed ejaculation or no feeling of pleasure during ejaculation?

(iv) What is the extent of embarrassment, anxiety or feelings of disgust about sex for either of the partners?

(v) Are the partners able to communicate with each other about their sexual relationship?

(vi) What is the quality and extent of foreplay in the sexual encounter? At what point during foreplay (kissing, cuddling, touching of genitals, mutual masturbation or oral sex) are problems encountered?

2.4 The pilot version of the GRISS contained 96 items (48 for the man and 48 for the woman) covering the area of the blueprint. Piloting was carried out on 51 client couples at the Maudsley Hospital Sexual Dysfunction Clinic and on 36 non-clinical couples from the University of London where one of the partners was taking a part time course as a mature student. The response rate was 100 per cent for the clinical sample and rather less than 50 per cent for the students. However, the low response rate for the non-clinical group was not seen as problematic for the purposes of item analysis, particularly as it seemed likely that those without problems were more likely to respond and thus provide satisfactory information about their end of the scales.

The first stage of item analysis aimed to eliminate items with extreme scores or with a large amount of response refusal. Examples of items lost at this stage were:

'Does a vibrator help you reach an orgasm?' (for women).

Comment: Many women were not acquainted with vibrators.

'Do you find yourself unable to reach orgasm by stimulating your clitoris in any way when you are alone?'

Comment: Many women commented that they didn't masturbate and therefore didn't know. Generally, questions about masturbation generated anxiety and replies were occasionally blank or inconsistent for these items. For this reason they were dropped from the questionnaire. Although it is important to know about masturbation, particularly for the diagnosis of anorgasmia, it is possible to obtain this information indirectly. For example, we can compare responses to 'Do you reach orgasm?' with 'Do you reach orgasm during intercourse?'

'Do you enjoy having your genitals stimulated by your partner's mouth?'

Comment: Oral sex did not appear to be very common and, as with masturbation, generated anxiety.

'Do you experience pain on ejaculation?'

Comment: A rather rare complaint that is not best assessed by a continuous scale.

The second stage of questionnaire construction involved the identification of stable subscale scores. Promax oblique factor analysis was used to identify subscales in the first instance. The subscale items indicated were then factor analysed separately for each subscale using

varimax orthogonal rotations. Original subscale length varied between five and nine items. The final subscales had four items each, selected according to the following criteria:

- (i) Stability of the factor structure, with a common factor accounting for more than 50 per cent of the variance.
- (ii) An equal number of items (two each) with positive and negative loadings.
- (iii) Content continuity along the full length of the indicated dimensions.
- (iv) Factorial consistency between the clinical and student samples.
- (v) Face validity.

Four of the subscales thus generated concerned the specific problems of anorgasmia, impotence, vaginismus and premature ejaculation. Six subscales gave separate male and female scores for avoidance, dissatisfaction and non-sensuality. The remaining two subscales measured infrequency and non-communication about sex within the couple.

In the third stage, overall scales were sought to describe the state of the couple's sexual relationship. This involved an orthogonal factor analysis of the scored subscales, together with items that had not entered into the subscale construction or that correlated with two or more of the subscales. The factor analysis yielded an orthogonal two-factor solution. This has been replicated on the standardization sample and is similar to the factor analysis of transformed scores shown in Figure 1. A characteristic of this structure is that the direction of the axes is unstable and any of a number of rotations may be meaningful. The rotation chosen for the GRISS gives a separate scale for men and women. Another possibility would have been to rotate this solution through 45 degrees to obtain a couple problem scale with a second rather complicated factor of 'male problem' versus 'female problem' at right angles to it. However, this solution would underestimate the significance of anorgasmia and impotence for the couple as a whole.

Some of the items retained in the questionnaire contributed toward the two main scales but were not included in the subscales. Items dealing with sexual desire generally fell into this category as they had high loadings on the main scale factors. Items that disappeared at the third stage of the analysis, because of low communality, included those dealing with fantasy. These items additionally failed to form a consistent subscale.

Following item analysis, the GRISS comprised 56 items (28 for men and 28 for women). The items are shown on pages 24 and 25.

3. The standardization study

3.1 Standardization was based on a sample of 88 sex therapy clients from clinics throughout the United Kingdom. A combination of norm referencing and criterion referencing yielded transformed scales that give a good indication of the existence and severity of any problems.

Transformations are to a pseudostanine scale (from 1 - 9), with a score of 5 or above indicating a problem. Distributions of these transformed scales are approximately normal for the clinical sample, but skewed towards the lower end of the scale to facilitate measurement in non-clinical populations. Additional verification of the scales and subscales for non-clinical samples has been carried out using data from the student sample in the pilot study and a random sample of 59 people attending their family doctor (Golombok et al, 1984).

3.2 As the pilot study involved more than one level of item selection, the structure of the subscales and main scales was replicated for the selected items. The characteristics of the factor analyses were stable across both the pilot and standardization samples.

3.3 The orthogonal two-factor solution of the factor analysis of the transformed subscales appears in Figure 1. The structure is in agreement with those found with the raw scores from both samples in the pilot study, and with the untransformed data from the standardization study. The spread of subscales between the two factors is worth noting, and can be taken as an indication that, if specific effects are of interest, the subscale scores in addition to the overall scores will be required. This spread is not surprising given the interactive nature of the subject matter. Factor 1 corresponds to the female main scale, and Factor 2 to the male main scale.

Figure 1

Factor analysis of the transformed sub-scales on the standardization sample (88 clinical couples)

AVF Female avoidance

NSF Female non-sensuality

DISM Male dissatisfaction

ANORG Anorgasmia

DISF Female dissatisfaction

INF Infrequency

NCO Non-communication

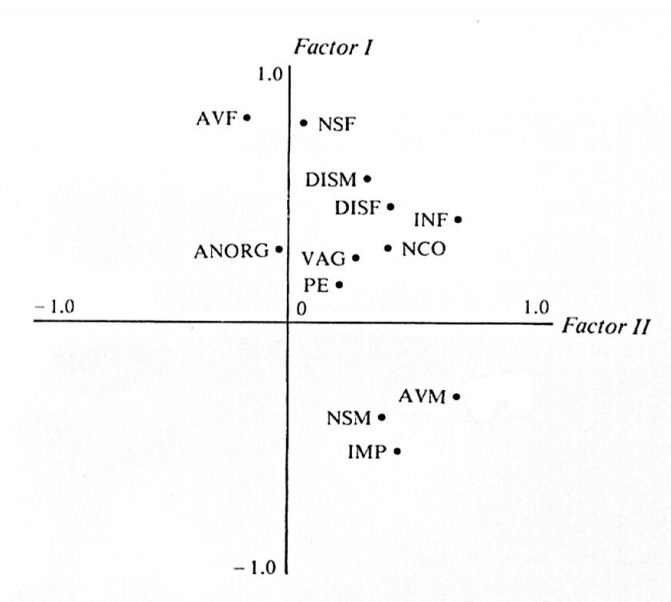
VAG Vaginismus

PE Premature ejaculation

AVM Male avoidance

NSM Male non-sensuality

IMP Impotence

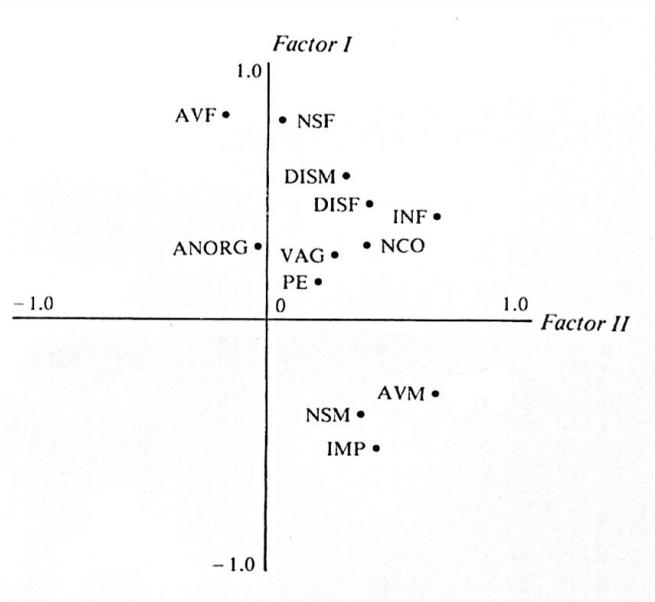


3.4 It would be statistically invalid to include the main scales within the same factor analysis as the subscales, as some items are common to both. However, it is instructive to plot the correlations of the subscales with the two main scales (see Figure 2). It can be seen that the pattern is similar to that found for the factor analysis in Figure 1. Differences appear because contributions of the subscales to the main scales are not based on the factor analysis alone, but also on *a priori* considerations of their importance. Thus, for example, premature ejaculation and vaginismus appear more saturated in Figure 2.

Figure 2

Correlations between the sub-scale scores and the two main scales. The correlation between the two main scales is .04 (N = 88)

- AVF Female avoidance
- NSF Female non-sensuality
- DISM Male dissatisfaction
- ANORG Anorgasmia
- DISF Female dissatisfaction
- INF Infrequency
- NCO Non-communication
- VAG Vaginismus
- PE Premature ejaculation
- AVM Male avoidance
- NSM Male non-sensuality
- IMP Impotence



The significance of some of the correlations in Figure 2 can be interpreted where subscale and main scale have no items in common. It is interesting to note that impotence is significantly negatively correlated with a female problem (p less than .001). That is, where the woman has no problem the man is more likely to be impotent. Vaginismus, on the other hand, is positively correlated with a problem in the male partner (p less than .05). There is an interesting discrepancy between male and female dissatisfaction. Men appear to be dissatisfied only when their partner has a problem whereas women are equally likely to be dissatisfied with their own performance. Finally, both men and women are less likely to show a problem when their partner is avoiding sex, perhaps indicating that a partner's problems can be a convenient cover-up.

3.5 One major research use of the GRISS will be to look at the correlation of its scales and subscales with extraneous variables. The only external variables included in the standardization study were the partner's age and the length of relationship. It was found that male sexual functioning tends to decrease significantly with the length of the relationship (p less than .001), and somewhat less so with age. Women, on the other hand, tend to become increasingly sexual the older they are, the length of the particular relationship having little special significance. Inspection of the subscale correlations shows that, for men, the effect of the length of the relationship operates to a limited extent on most of the subscales but is highest on the overall scale. Age, however, does have an important specific effect on male impotence, the correlation here being over .5 and thus accounting for more than 25 per cent of the variance. For women, increased age seems to be associated with a decrease in sexual problems, the correlation of age with the main scale being higher than that with any of the subscales.

3.6 Two major requirements of a good psychometric scale are that it should be unidimensional and normally distributed. The dimensionality of all of the scales and subscales used in the GRISS has been developed within the item analysis, and replicated in

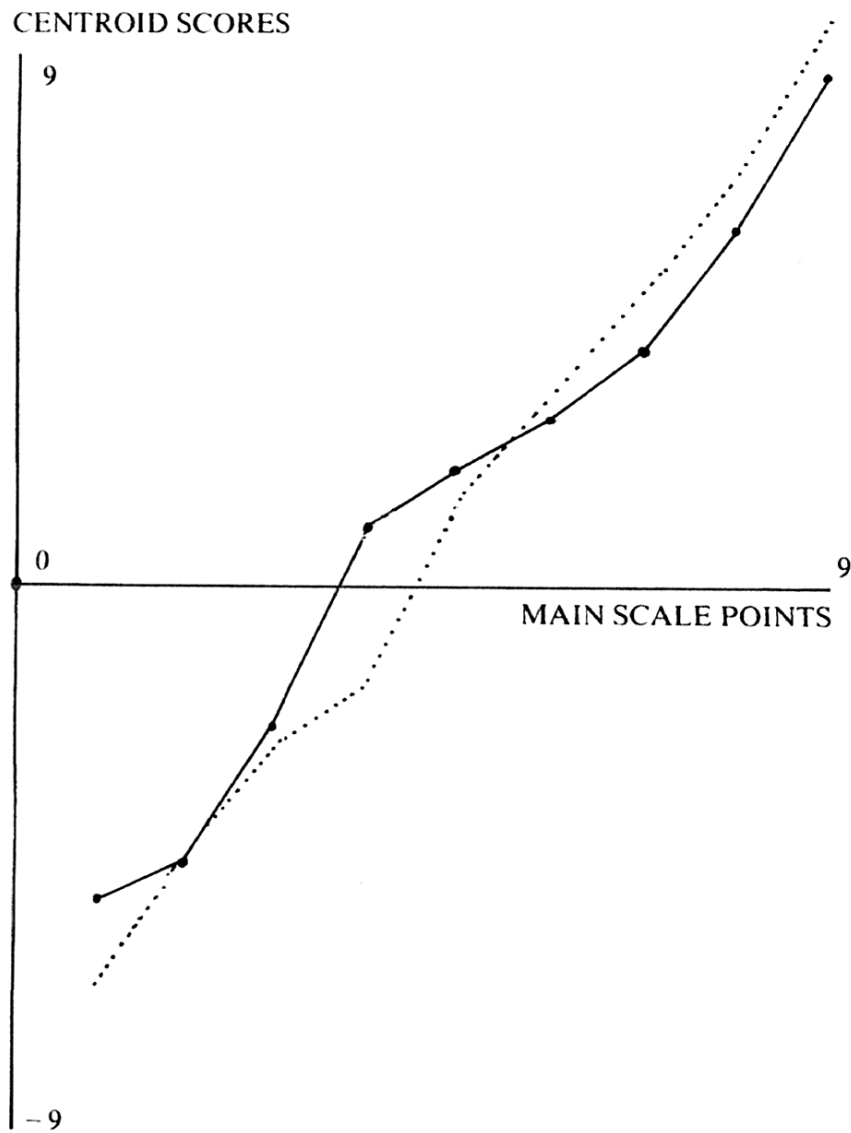
the standardization study. Factor analysis has clearly demonstrated that each scale and subscale consists of items that all contribute to unidimensional scales. Further, the scales have been transformed using a combination of techniques which should prevent any problematic deviations from normality in either clinical or population samples.

We might further require the scales and subscales to be linear with respect to each other. Of course, for some subscales linear relationships might not be expected. For example, either extreme of frequency of sexual intercourse could be associated with some degree of impotence for different reasons. However, it is possible to test the overall linearity of the scales and subscales against a background of all the other variables taken together. As the transformed scores are on stanine scales, discriminant function analysis provides a useful technique for doing this. Ideally, taking each variable in turn as the independent variable and the rest as dependent variables, only one significant discriminant function should be produced in each case. This would indicate that at all points in the scale, whether at the lower or the upper end, the scale is consistently measuring the same trait. If the scales were measuring different traits at different points, or if the quality of measurement was different at different points, then this would be indicated by the nature of any further discriminant functions that were found.

The results of this analysis were very satisfactory. The plot of centroid groups against scale points for the main scales appears in Figure 3. All cases produced very significant first discriminant functions, and in only two cases were second discriminants marginally significant. In both of these cases the second function made intuitive sense and did not interfere with any important aspects of the measurement. Ordering of subscale points was linear, showing only occasional non-significant discrepancies.

Figure 3

Discriminant function analysis for the main scales. Discrimination is between the nine transformed scale points. Discriminating variables are the subscale scores.



4. Reliability

4.1 For the standardisation study the split-half reliabilities of the main scales were found to be high, .94 and .87 for the female and the male scales respectively. The reliabilities of the subscales are given a minimum value by the internal consistencies, which were obtained from the factor analysis of the items in the standardization sample (square root of % variance for the first factor of each subscale). The values obtained are high for scales with this number of items, averaging .74, and ranging between .61 for non-communication and .83 for anorgasmia (see Table 1). Test - retest reliabilities were calculated for pre- and post-therapy data on 41 clinical couples, 20 of whom had marital therapy (Bennun et al., 1985), and 21 sex therapy. Both of these groups showed significant changes with therapy, so that the figures obtained were underestimates. The values obtained were .76 for the male scale, and .65 for the female scale. Subscale test - retest reliabilities ranged from .47 for female dissatisfaction to .84 for premature ejaculation, and averaged at .65 (see Table 1).

Further evidence of reliability, this time in the United States, was obtained in 2001 from a sample of 127 couples who attended the Sexual Dysfunction Clinic at John Hopkins University, Baltimore (Osborne et al, 2001). For this sample the split-half reliabilities for the male and female overall scales were 0.92 and 0.92 respectively. Internal consistencies for the subscales were also calculated for the John Hopkins data. These are given in Table 1.

Table 1

Reliability of the GRISS subscales

<i>Type</i>	<i>Internal Consistency</i>	<i>Internal Consistency</i>	<i>Test - retest Reliability</i>
<i>Sample</i>	<i>Maudsley¹</i>	<i>John Hopkins</i>	<i>Maudsley¹</i>
<i>Location</i>	<i>London, UK</i>	<i>Baltimore, USA</i>	<i>London, UK</i>
<i>Year</i>	<i>1984</i>	<i>2001</i>	<i>1978</i>
<i>Sample Size</i>	<i>88</i>	<i>127</i>	<i>41</i>
 <i>Subscale</i>			
Impotence	0.78	0.86	0.79
Premature ejaculation	0.78	0.84	0.84
Male non-sensuality	0.69	0.70	0.57
Male avoidance	0.76	0.74	0.64
Male dissatisfaction	0.69	0.69	0.61
Infrequency	0.79	0.79	0.66
Non-communication	0.61	0.69	0.52
Female dissatisfaction	0.64	0.64	0.47
Female avoidance	0.82	0.86	0.62
Female non-sensuality	0.78	0.70	0.61
Vaginismus	0.73	0.81	0.82
Anorgasmia	0.83	0.85	0.61

¹ For the Maudsley Hospital sample the internal consistencies of the subscales were calculated as square root variance of the first factor for each subscale in the 88-subject standardization sample, and estimated test - retest reliability was calculated from the pre-post treatment correlations (this is an underestimate as there was significant improvement overall during therapy).

5. Validity

5.1 Using data derived from 68 men and 63 women, of whom 62 were couples, at sexual dysfunction clinics throughout the United Kingdom, therapists completed validation questionnaires in which they were asked to define the severity and nature of any sexual problems for men and women separately. Twenty-four men were diagnosed as impotent, 19 as having premature ejaculation, 15 as having low interest in sex and 10 as having other problems. There was some overlap between the categories, with 3 of the men having both premature ejaculation and impotence, and 8 having both impotence and low interest in sex. Those with other problems were subdivided into 5 with delayed ejaculation, 1 with lack of sex education, 1 with fear of sex, 1 with difficulty in showing affection, 1 with relationship problems resulting from his interest in cross dressing, and one with impotence that was considered to be physiologically based. The remaining men had no problem but accompanied a dysfunctional partner. Fourteen of the women were diagnosed as anorgasmic, 26 as having low interest in sex, 5 as having vaginismus, and 6 as having other problems. Nine of the women with anorgasmia also had low interest in sex. In the 'other problems' category were 2 women with lack of sex education, 1 with anxiety about sex, 1 with preoccupation about her husband's cross-dressing, and 1 who was unhappy about her husband's interest in watching her make love to other men. The remaining women had no problem but accompanied dysfunctional partners.

5.2 Those subjects (N = 42 for women, N = 57 for men) in the clinical group who had been diagnosed as having a problem were compared with a control group of 59 subjects (29 men and 30 women) taken from a random sample of General Practitioner attendees (Golombok et al., 1984). Both the overall female scale (point biserial $r = .63$, $p < .001$) and the overall male scale (point biserial $r = .37$, $p < .005$) were found to discriminate between the clinical and non-clinical groups. Only 4 female clinical subjects scored lower than the mean for the control group. Of these, 3 had specific difficulties coping with their partner's cross-dressing, delayed ejaculation and anger about premature ejaculation, respectively. Fourteen of the men had scores less than the mean for the control group. Of these, 5 had severely dysfunctional

partners, 3 had quite severe premature ejaculation (which is known from the factor analysis to have a relatively small loading on the male scale), and 3 had delayed ejaculation.

5.3. The specific dysfunctional groups as diagnosed by the therapists (impotence, premature ejaculation, vaginismus and anorgasmia) were also compared with the General Practice control group. All clinical groups differed from the control group on their target subscale. For impotence ($t = 7.55, p < .001$), none of the clinical group scored lower than the mean for the control group. For premature ejaculation ($t = 5.37, p < .001$), only 1 clinical subject scored lower than the mean for the control group. In this case the subject had a severely dysfunctional partner. For anorgasmia ($t = 3.46, p < .005$), 3 clinical subjects scored less than the mean for the control group. None of these three was having sexual intercourse with their partner. For vaginismus, the 5 women so diagnosed all obtained higher scores on the vaginismus subscale than any of the control subjects.

T-test comparisons were also carried out between the two groups for the eight subscales that did not measure specific dysfunction. Infrequency, male and female dissatisfaction and female avoidance were all significant at the .001 level, while female nonsensuality was significant at the .005 level. Non-communication, male non-sensuality and male avoidance were not significantly different between the two groups. Male avoidance attained the 0.025 level of significance, however, in a comparison between the 15 men diagnosed as having low interest in sex and the control group.

5.4 A further measure of validity was obtained by correlating the therapists' ratings of severity of problems (ranging from 0 = no problem, 1 = slight problem, 2 = moderate problem to 3 = severe problem) with the overall male and female scales. These were $r = .56$ ($N = 63, p < .001$) for women and $r = .53$ ($N = 68, p < .001$) for men, which were good for an instrument of this type.

5.5 Follow-up validation of the main scales against therapists' estimates of improvement during therapy was carried out for 30 clinical couples after their fifth sex therapy session. The therapists, who were "blind" to the GRISS results, rated both the man and the woman separately on a five-point scale ranging from '0: improved a great deal' through '1: improved moderately', '2: slightly improved', '3: not improved at all' to '4: got worse'. For men, the

correlation between the therapists' ratings of improvement and change in the main male score was .54 ($p < .005$). For women, the equivalent correlation was .43 ($p < .02$).

5.6 Data were analysed from 127 couples at the Sexual Dysfunction Clinic at Johns Hopkins University in the United States (Osborne et al, 2001). No data were received from the partners of 2 men and 1 woman, so the sample of complete couples was 124. The mean age of the men in the sample was 45.43 years (s.d. = 12.36 years, ranged between 21 and 74 years). The mean age of the women was 42.49 years (s.d. = 11.32 years, ranged between 21 and 70 years). Respondents in the sample were diagnosed according to DSM-IV-TR criteria. These, together with the frequencies of the diagnoses in the sample, are given in Table 2. These categories are not mutually exclusive.

Table 2

DSM-IV-TR diagnoses and their frequencies for a sample of 127 sex therapy couples at the Sexual Dysfunction Clinic at John Hopkins University

Men	N	GRISS Scale ¹
302.70: Sexual Dysfunction not otherwise specified	1	-
302.71: Hypoactive Sexual Desire Disorder	11	Male Non-Sensuality
302.72: Male Erectile Disorder	37	Impotence
302.74: Male Orgasmic Disorder	2	-
302.75: Premature Ejaculation	17	Premature Ejaculation
302.76: Dyspareunia	2	-
302.79: Sexual Aversion Disorder	4	Male Avoidance
Any of the above	61	Overall Male Scale

Women

302.70: Sexual Dysfunction not otherwise specified	2	-
302.71: Hypoactive Sexual Desire Disorder	16	Female Non-Sensuality
302.72: Female Sexual Arousal Disorder	1	-

302.73: Female Orgasmic Disorder	8	Anorgasmia
302.76: Dyspareunia	6	Vaginismus
302.79: Sexual Aversion Disorder	6	Female Avoidance
306.51: Vaginismus	4	Vaginismus
Any of the above	35	Overall Female Scale

¹ The GRISS Scale is only given where there are at least 4 persons in the sample who have received the diagnosis.

The overall Male and Female GRISS scores were examined for those who had a diagnosis of sexual dysfunction and those who did not. Of the 126 men in the sample, 61 had a diagnosis for a sexual dysfunction while 65 did not. The point-biserial correlation between diagnosis (or not) of a male dysfunction and the GRISS Male Score was 0.26 ($p < .006$). Of the 125 women in the sample, 35 had a diagnosis for a sexual dysfunction while 90 did not. The point-biserial correlation between diagnosis (or not) of a female dysfunction and the GRISS Female Score was 0.41 ($p < .001$).

5.7 The subscales of the GRISS also received further validation from the sample at John Hopkins University. Table 2 shows the expected relationship between the DSM-IV diagnoses and the GRISS sub-cales. Tables 3 and 4 show the point-biserial correlations between the GRISS subscales and the specified diagnoses.

Table 3

Point-Biserial correlations between the GRISS subscales and diagnoses of female sexual dysfunction in 127 women attending the Sexual Dysfunction clinic at John Hopkins University (the presence of a diagnosis was rated as '1', and the absence of a diagnosis was rated as '0').

GRISS subscale	Hypoactive Sexual Disorder Desire Disorder	Orgasmic Aversion Disorder	Dyspareunia	Sexual Vaginismus		
Number with this condition	16	8	6	6	4	
Impotence	-.16	-.18*	-.10	-.12	-.11	
Premature Ejaculation	-.18*	-.02	.01	.06	.02	
Male Non-Sensuality	-.06	-.16	.01	-.13	.00	
Male Avoidance	-.21**	-.28**	-.08	-.06	-.13	
Male Dissatisfaction	.13	.01	-.10	.11	-.06	
Male Infrequency	.10	-.33***	-.04	.04	-.16	
Male Non-Communication	-.11	-.27**	.00	.07	.01	
Female Non-Communication		.15	-.03	-.03	.15	-.08
Female Infrequency	.09	-.31***	.03	.03	-.08	
Female Non-Sensuality	.19*	.20*	-.04	.16	.00	
Female Avoidance	.12	.10	.08	.19*	.09	
Female Dissatisfaction	-.10	-.09	-.19*	.10	-.17	
Vaginismus	.01	.05	.28**	.06	.32***	
Anorgasmia	.16	.48***	-.04	.11	-.01	

Note: * = <.05, ** = <.01, *** = <.001, Hypothesised relationships appear in bold.

Table 4

Point-Biserial correlations between the GRISS subscales and diagnoses of male sexual dysfunction in 127 women attending the Sexual Dysfunction clinic at John Hopkins University (the presence of a diagnosis was rated as '1', and the absence of a diagnosis was rated as '0').

Table 4 Male diagnoses

GRISS subscale	Hypoactive Sexual Desire Disorder	Erectile Disorder	Premature Ejaculation	Sexual Aversion Disorder
Number with this condition	11	37	17	4
Impotence	.09	.53***	-.06	.04
Premature Ejaculation	-.04	.25**	.36***	-.02
Male Non-Sensuality	.02	.06	-.11	.04
Male Avoidance	.12	.18*	.04	.20*
Male Dissatisfaction	-.14	-.05	.05	-.04
Male Infrequency	.09	-.03	-.06	.06
Male Non-Communication	-.03	.00	-.07	.07
Female Non-Communication	-.07	-.03	.05	-.12
Female Infrequency	.01	.05	-.12	.09
Female Non-Sensuality	-.09	-.05	.02	.00
Female Avoidance	-.11	-.10	.14	-.13
Female Dissatisfaction	-.02	.18*	.23**	.05
Vaginismus	.04	-.20*	-.04	-.02
Anorgasmia	-.10	-.14*	.14	-.16

Note: * = <.05, ** = <.01, *** = <.001. Hypothesised relationships appear in bold.

It can be seen that, apart from the correlation between the Male Non-Sensuality subscale and the diagnosis of Male Hypoactive Sexual Desire Disorder, all the validation correlations are significant at or beyond the .05 level

Data from the John Hopkins study were also used to calculate the Sensitivity and Specificity of the GRISS subscales with respect to the DSM-IV-TR diagnoses. The results are given in Table 5. All the results for cases where four or more patients received the diagnosis were statistically significant with the exception of Male Hypoactive sexual Desire Disorder. However, there are several reasons why we may begin to doubt whether this analysis presents a complete picture. Firstly, a set of t-tests comparing those with a diagnosis of Hypoactive Sexual Desire with those without for all GRISS items shows none to be significant, even where it might be considered to be a minimal expectation. For example the item "Do you feel uninterested in sex?" fails completely to distinguish between the two groups (Chi-Square = 1.66, n.s.). Second, a stepwise regression in which the best predictors of Hypoactive Sexual Desire are obtained from the GRISS subscales suggests that the only combination of scores that can significantly predict this diagnosis are a combination of high infrequency and low dissatisfaction. $F = 3.89, p < .02, R = .25$, male dissatisfaction $p < .01$, male infrequency $p < .05$). Perhaps more work needs to be done on the manner in which Sexual Desire Disorders in men are diagnosed.

Table 5

Sensitivity and Specificity data from a sample of 127 sex therapy couples at the Sexual Dysfunction Clinic at John Hopkins University. Diagnosis using DSM-IV-TR. The significance of the Linear Chi-Square test of association is also given for each diagnosis. GRISS Scores are 1 to 9, with 9 representing a problem. The cut-off GRISS score is 6 or higher.

Men	N	GRISS Scale ¹	Sensitivity	Specificity
302.71: Hypoactive Desire Disorder	11		Male	Non-Sensuality
	0.455		0.69	ns
302.72: Male Erectile Disorder	37	Impotence	0.86	0.76 p<.001
302.75: Premature Ejaculation	17	Premature Ejaculation	0.82	0.70 p<.001
302.79: Sexual Aversion Disorder	4	Male Avoidance	0.50	0.71 p<.05
Any of the above	61	Overall Male Scale	0.61	0.62 p<.01
Women				
302.71: Hypoactive Desire Disorder	16		Female	Non-Sensuality
	0.75	0.585	p<.05	
302.73: Female Orgasmic Disorder	8		Anorgasmia	0.875
	0.84	p<.001		
302.76: Dyspareunia	6	Vaginismus	0.50	0.83 p<.002
302.79: Sexual Aversion Disorder	6	Female Avoidance	0.80	0.595 p<.05
306.51: Vaginismus	4	Vaginismus	0.75	0.84 p<.001
Any of the above	35	Overall Female Scale	0.485	0.785 p<.001

6. Sampling and refusal

6.1 In a clinical setting, refusal to answer a questionnaire, or specific questions on it, is not usually problematic as the clients are highly motivated. However, refusal can be a major difficulty in non-clinical samples. The authors of the GRISS have endeavoured, on the basis of experience and item analysis, to keep embarrassing and difficult questions to a minimum. Refusal to answer particular items is not now a problem. However, the use of the questionnaire requires certain precautions.

Simply handing out the questionnaire, especially in groups, is extremely unlikely to be successful. Care has to be taken to ensure confidentiality, particularly in respect of the partner. Even if partners take the GRISS home with them knowing that they should not show their responses to each other, the dynamics of most relationships make this extremely difficult to achieve in practice. Consideration of each other's answers within the couple can, of course, be a very instructive and therapeutic exercise. However, in most cases the replies given are likely to be biased if the respondent knows, or even simply worries, that their partner may see them. The necessary confidentiality can usually only be obtained if the researcher sees the partners separately.

Although sexuality is a very difficult area to research, some studies have achieved relatively high response rates. In our study of General Practice attendees we were encouraged to find that only five per cent refused to complete the GRISS. Good results require a great deal of care in data collection, using sympathetic interviewers, or authority figures such as medical practitioners. There should be no need to add that it is extremely important that confidentiality, when guaranteed, should be strictly observed.

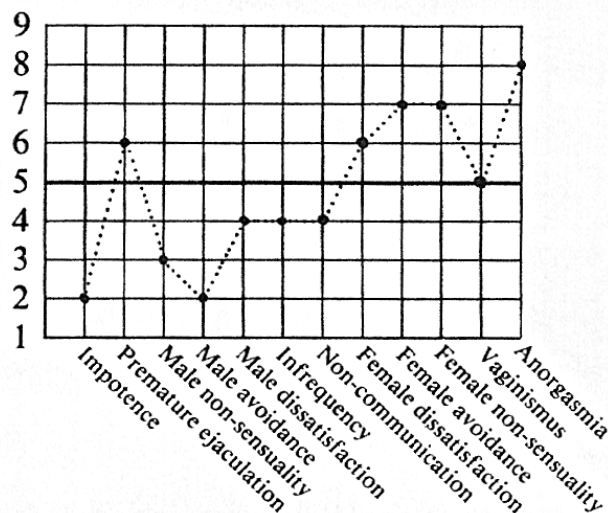
7. The diagnostic profile

7.1 For most research purposes, scores on the main scales will be the most important. These scores measure the person's overall sexual functioning - the higher the score the greater the sexual dysfunction. The main scale scores have high reliability and validity, and consequently are more sensitive to differences in sexual functioning. However, even for research, the subscales will be of use once overall effects are found for identifying modes of operation.

The subscales are also of use in diagnosis and, for ease of interpretation, have been scaled in such a way as to give a profile. An example of a profile of a case of anorgasmia is given in Figure 4. For non-clinical samples it must be remembered that the construction has allowed for non-problematic variation between scale points 1 and 4. Thus a set of scores of 1 straight across the board would be exceptional. As yet no profiles with no score above 3 have been found, and even these would only be expected during the heyday of a good relationship. It is to be expected that a normal relationship would give at least one score of 5 on the subscales. Thus, the subscales need to be interpreted as a whole.

Figure 4

An example of a GRISS profile. A general female problem is indicated, associated with premature ejaculation in the male partner.



7.2 It would be misleading to give a 'typical' profile for the four major dysfunctions. Anorgasmia, for example, may be associated with poor communication and a male partner who is unaware that there is a problem. Or it may exist in combination with very high scores on non-sensuality. Alternatively, it might be found in combination with premature ejaculation or impotence in the male partner. The profile is useful in indicating associated subscales where change is possible, and can be of great benefit in designing a treatment programme.

8. Scoring instructions

8.1 The male and female versions of the GRISS are scored to produce an overall score for the male and female partner respectively. For each version of the GRISS (i.e. male and female) there are seven subscale scores, five of which are shared and two of which are unique. The five shared scales are non-communication, infrequency, dissatisfaction, avoidance and nonsensuality. The unique subscales for the male version of the GRISS are impotence and premature ejaculation, while the female GRISS has subscales for vaginismus and anorgasmia. Raw scores may be converted into transformed scores between 1 and 9 and used to produce a diagnostic profile. The transformations were developed from the standardization sample and a score of 5 or above indicates a problem. Scoring instructions are available from the publisher.

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Appendix: GRISS questionnaire items (female)

- 1 Do you feel uninterested in sex?
- 2 Do you ask your partner what he likes or dislikes about your sexual relationship?
- 3 Are there weeks in which you don't have sex at all?
- 4 Do you become easily sexually aroused?
- 5 Are you satisfied with the amount of time you and your partner spend on foreplay?
- 6 Do you find that your vagina is so tight that your partner's penis cannot enter it?
- 7 Do you try to avoid having sex with your partner?
- 8 Are you able to experience an orgasm with your partner?
- 9 Do you enjoy cuddling and caressing your partner's body?
- 10 Do you find your sexual relationship with your partner satisfactory?
- 11 Is it possible to insert your finger into your vagina without discomfort?
- 12 Do you dislike stroking and caressing your partner's penis?
- 13 Do you become tense and anxious when your partner wants to have sex?
- 14 Do you find it impossible to have an orgasm?
- 15 Do you have sexual intercourse more than twice a week?
- 16 Do you find it hard to tell your partner what you like and dislike about your sexual relationship?
- 17 Is it possible for your partner's penis to enter your vagina without discomfort?
- 18 Do you feel there is a lack of love and affection in your sexual relationship with your partner?
- 19 Do you enjoy having your genitals stroked and caressed by your partner?
- 20 Do you refuse to have sex with your partner?
- 21 Can you reach orgasm when your partner stimulates your clitoris during foreplay?
- 22 Do you feel dissatisfied with the amount of time your partner spends on intercourse itself?
- 23 Do you have feelings of disgust about what you do during lovemaking?
- 24 Do you find that your vagina is rather tight so that your partner's penis can't penetrate very far?
- 25 Do you dislike being cuddled and caressed by your partner?
- 26 Does your vagina become moist during lovemaking?
- 27 Do you enjoy having sexual intercourse with your partner?
- 28 Do you fail to reach orgasm during intercourse?

Appendix - GRISS Questionnaire Items (Male)

- 1 Do you have sexual intercourse more than twice a week?
- 2 Do you find it hard to tell your partner what you like or dislike about your sexual relationship?
- 3 Do you become easily sexually aroused?
- 4 Are you able to delay ejaculation during intercourse if you think you may be 'coming' too quickly?
- 5 Are you dissatisfied with the amount of variety in your sex life with your partner?
- 6 Do you dislike stroking and caressing your partner's genitals?
- 7 Do you become tense and anxious when your partner wants to have sex?
- 8 Do you enjoy having sexual intercourse with your partner?
- 9 Do you ask your partner what she likes and dislikes about your sexual relationship?
- 10 Do you fail to get an erection?
- 11 Do you feel there is a lack of love and affection in your sexual relationship with your partner?
- 12 Do you enjoy having your penis stroked and caressed by your partner?
- 13 Can you avoid ejaculating too quickly during intercourse?
- 14 Do you try to avoid having sex with your partner?
- 15 Do you find your sexual relationship with your partner satisfactory?
- 16 Do you get an erection during foreplay with your partner?
- 17 Are there weeks in which you don't have sex at all?
- 18 Do you enjoy mutual masturbation with your partner?
- 19 If you want sex with your partner do you take the initiative?
- 20 Do you dislike being cuddled and caressed by your partner?
- 21 Do you have sexual intercourse as often as you would like?
- 22 Do you refuse to have sex with your partner?
- 23 Do you lose your erection during intercourse?
- 24 Do you ejaculate without wanting to almost as soon as your penis enters your partner's vagina?
- 25 Do you enjoy cuddling and caressing your partner's body?
- 26 Do you feel uninterested in sex?
- 27 Do you ejaculate by accident just before your penis is about to enter your partner's vagina?
- 28 Do you have feelings of disgust about what you and your partner do during lovemaking?