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Behavioural Treatment of Orgasmic Dysfunction: A Controlled Study

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Summary. Twenty-two anorgasmic women received 20 sessions of a multiple-technique behavioural therapy. The design included blind ratings by two independent assessors, multiple assessment instruments, and a waiting list control group.

Treatment was significantly better than no treatment in terms of: (1) the percentage of patients experiencing orgasm during at least 50 per cent of sexual relations; (2) the percentage of women reporting satisfactory sexual relations at least 50 per cent of the time; (3) patients' ratings of positive reactions to various sexual behaviours; and (4) assessors' global clinical ratings.

Significant improvement was also noted on the MMPI, IPAT, and Symptom Check List. Improvement was maintained at a follow-up average 9 months later. These results support the impression that a behavioural approach offers much promise in treating female orgasmic dysfunction.

Introduction

Despite the increasing use of behavioural techniques in the treatment of psychological disorders in general (Wolpe, 1974), and the spreading use of Masters' and Johnson's (1970) procedures for sexual dysfunction in particular, there has so far been little controlled outcome research in the behaviour therapy of sexual dysfunction (Kaplan, 1974; Munjack and Kanno, 1976; Obler, 1973; Wincze and Caird, 1973).

The following investigation compares a behavioural treatment involving multiple techniques and a delayed treatment (waiting list) control group in treating female orgasmic dysfunction.

Subjects and Method

Subjects were 22 middle- to upper-class non-psychotic white women, averaging 29 years of age, married an average of 6·6 years, and currently living with their husbands. For at least the previous year they had experienced no orgasms with any kind of sexual activity with any partner. Twelve had a primary orgasmic dysfunction—they had never experienced orgasm (other than during sleep). Ten others had had at least one orgasm in the past; the mean symptom duration of these secondary orgasmic dysfunction was 4·2 years. The assessors tried to exclude couples whose problems seemed to be primarily marital or interpersonal, and indeed only two wives and three husbands rated their marriages as less than 'happy'. The research design was explained to all couples, and each signed an informed consent and agreed to return for follow-up interviews.

Initial psychiatric and medical evaluation of wives

The women completed the Minnesota Multiphasic Personality Inventory (MMPI) (Hathaway, 1967), Eysenck Personality Inventory (EPI) (Eysenck, 1968), Symptom Check List (SCL) (Lipman, 1968), Self-Analysis Form (anxiety scale) by the Institute

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for Personality and Ability Testing (IPAT) (Cattell, 1957), Marriage Adjustment Schedule (which contained a marital compatibility checklist), and a Background Schedule. A male evaluating psychiatrist and a female evaluating social worker were the assessors and took a standard general medical and psychiatric history in a one-hour session. A recent gynaecological examination was required.

Each patient indicated her reactions on a 'Sexual Adjustment Form' to various specific aspects of sexual behaviour (e.g., reaction to stimulation of breasts was 'tense, apathetic, disgusted, pleasant, and/or sexual feeling'). She also indicated her usual behaviour regarding initiating sexual relations with her husband, how often she anticipated sexual relations pleasantly, how often sexual relations occurred, and the number of minutes of foreplay. Also recorded were the percentage of times orgasm was reached during sexual relations and the percentage of times sexual relations were rated as satisfactory.

After the assessment, the couple was randomly assigned either to an immediate treatment group (ITG) or to a delayed treatment (waiting list) control group (DTG). The DTG patients were told that they would definitely be treated after a waiting period of at most ten weeks.

Initial psychiatric evaluation of the husbands

The patient's husband filled out the Background Schedule, Marriage Adjustment Schedule, and the EPI. The psychiatrist first interviewed the husband and wife together. Then, while the wife was being more extensively interviewed by the psychiatrist, the husband was simultaneously interviewed by the female assessor to determine his sexual adjustment and role in his wife's sexual dysfunction.

Treatment procedures

Therapy was applied within a behavioural and social learning framework. This included a detailed history and behavioural analysis, with interventions tailored to the individual case. Such techniques as systematic desensitization, assertion training, modelling and behavioural rehearsal were used, to some degree, with all couples. A great deal of direct education was employed, using pictures, plastic models, etc. The couple also received graduated, specifically allocated assignments to reduce 'performance anxiety' and to allow for gradual re-exposure and overcoming of fear; their experiences during these home assignments often determined the content of subsequent therapy sessions. Masturbation training (LoPiccolo and Lobitz, 1972) and mechanical devices, such as vaginal dilators and vibrators, were occasionally employed. No drugs were prescribed.

In addition, the therapist facilitated open and intimate communication between the partners, focusing on sexual desires and preferences and suppressed or unrecognized resentment. Attempts were made to correct unreasonable expectations, misconceptions, and faulty communication patterns about sexual matters. However, the therapist tried to restrict his interaction with the partners to the treatment of marital discord and sexual dysfunction.

Three therapists (a male psychiatrist and a male and a female psychologist), each working without a co-therapist, held weekly sessions. Each therapist had had several years of experience with behavioural treatment but only moderate experience with female sexual dysfunction. Most patients were seen alone approximately 75 per cent of the time.

After the ITG had completed 20 sessions and the DTG had been on the waiting list for ten weeks, the couples were again interviewed by the assessors, who did not know which couples had received treatment. The DTG patients shortly after began treatment within the same behavioural framework as the ITG patients.

Post-treatment evaluations

At the time of post-treatment and post-wait-period reassessment, the IPAT, SCL, and Sexual Adjustment Form were re-administered. In addition, the assessors made a global assessment of change in the woman's sexual adjustment, as well as her feelings about sex. This rating was made on a scale from 'very much worse' to 'completely recovered'. These global ratings were recorded at pre-

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treatment (post-wait-period), post-treatment and at follow-up by both the male assessor interviewing the female patient and the female assessor interviewing her husband.

Results

The main indices of change on the Sexual Adjustment Form were: subjects' ratings of orgasmic frequency (success: orgasmic response during at least 50 per cent of sexual relations) and frequency of satisfactory sexual relations (success: subjective ratings of sexual relations as satisfactory in at least 50 per cent of the time). In addition, measures of sexual attitude change, assessors' global ratings of the subjects' sexual performance and feelings about sex, and changes on the MMPI, EPI, IPAT, and SCL were considered.

Approximately one-third of the females were orgasmic in at least 50 per cent of their sexual relations after twenty sessions and maintained this improvement at follow-up ($P < \cdot 01$). There was no change in orgasmic frequency in the DTG during the wait period. Subjective satisfaction from sexual relations showed greater improvement. At initial assessment, only one-sixth of the subjects were satisfied in at least 50 per cent of their sexual relations; at the end of treatment, this had increased to two-thirds of the treated sample, with improvement maintained at follow-up ($P < \cdot 001$). No significant change was recorded during the DTG wait period in ratings of satisfactory sexual relations.

Changes in positive and/or negative feelings on the Sex Adjustment Form were rated separately, although they occasionally occurred together. Since some reactions to sexual stimuli included both positive and negative elements (for example, anxiety as well as erotic feeling), it is possible to have the same item recorded in both columns, i.e. a significant decrease in anxiety and a simultaneous significant increase in pleasant feelings. After the DTG's period on the waiting list, their only significant changes were a decrease in negative feelings (tense, apathetic, disgust) regarding anticipation of sex and sexual encounter without orgasm. All other ratings indicated no change (Table I). For both groups combined there was a significant decrease after therapy in negative feelings on several items and an increase in pleasant feelings on several others (Table II). At follow-up, averaging nine months from the end of treatment, while the increases in pleasant feelings persisted, there was some slight return of negative feelings elicited by certain sexual stimuli (Table III).

On the assessors' global clinical ratings, there were significant improvements recorded between pre- and post-treatment assessments for both groups on sexual performance ($P < \cdot 01$) and feelings about sex ($P < \cdot 01$).

On the MMPI, there were significant decreases on the Depression ($P < \cdot 05$), Psychopathic Deviate ($P < \cdot 05$), and Psychasthenia ($P < \cdot 05$) (all one-tailed) scales between initial and follow-up assessments.

On the IPAT, there was a significant decrease on the overt anxiety (B) scale ($P < \cdot 05$) when

Table I

Sexual stimulus items showing significant change ($P < \cdot 05$) during the pre-treatment (wait) period (Delayed Treatment Group only)

Decrease in negative feelings	Increase in pleasant feelings
Anticipation of sex	None
After sexual encounter without orgasm	

Table II

Sexual stimulus items showing significant change ($P < \cdot 05$) between pre- and post-treatment for all patients

Decrease in negative feelings	Increase in pleasant feelings
Anticipation of sex	Initial approach of husband
Initial approach of husband	Sight of husband's nude body
During intense sexual foreplay	During intense sexual foreplay
Stimulation of breasts	Stimulation of breasts
Reaction to coitus	Stimulation of genitalia
	Stimulation of husband's genitalia
	Reaction to coitus
	After sexual encounter with orgasm

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TABLE III

Sexual stimulus items showing significant change ($P < \cdot 05$) between pre-treatment and follow-up for all patients

Decrease in negative feelings	Increase in pleasant feelings
Stimulation of husband's genitalia	Anticipation of sex
Reaction to coitus	Initial approach of husband
	Sight of husband's nude body
	During intense sexual foreplay
	Stimulation of genitalia
	Stimulation of husband's genitalia
	Reaction to coitus
	After sexual encounter with orgasm

measured from the initial assessment to post-treatment, and significant decreases on overt anxiety ($P < \cdot 05$) and total anxiety ($P < \cdot 05$) when the initial assessment was compared to follow-up.

On the EPI, while trends toward improvement (increase in extraversion, decrease in neuroticism) were apparent, only the Lie scale showed a significant decrease ($P < \cdot 05$) when the initial assessment was compared to post-treatment assessment. At follow-up, both Neuroticism ($P < \cdot 01$) and Lie ($P < \cdot 001$) scores had declined significantly as compared to initial assessment.

On the SCL, significant decreases were recorded on the Fear ($P < \cdot 05$) and Depression ($P < \cdot 05$) scales when the initial assessment was compared to post-treatment. At follow-up, this recorded improvement became even greater on the Depression scale ($P < \cdot 01$) and had been extended to decreases in General Neuroticism ($P < \cdot 05$) and Performance Difficulty ($P < \cdot 05$). Improvement on the Fear scale, while maintaining a trend in the direction of improvement, was no longer statistically significant.

Treatment affected patients with primary and secondary orgasmic dysfunction differently. At post-treatment assessment, 22 per cent of the primary and 40 per cent of the secondary orgasmic dysfunctional patients were orgasmic in at least 50 per cent of their sexual relations, whereas none were orgasmic before treatment. At follow-up, however, none of the primary orgasmic dysfunctional patients were orgasmic more than 50 per cent of the time, whereas the percentage of secondary orgasmic dysfunctional patients had increased to 60 per cent.

At initial assessment, only 18 per cent of the primary and 20 per cent of the secondary orgasmic dysfunctional patients considered themselves to have satisfactory sex relations at least 50 per cent of the time. For primary orgasmic dysfunctional patients, the percentage meeting this criterion had increased to 80 at the end of treatment, but dropped back to 40 at follow-up. Of the secondary orgasmic dysfunctional patients, 70 per cent considered themselves to have satisfactory sex relations at least 50 per cent of the time at the end of treatment, and at follow-up 100 per cent of this group had reached this level of satisfaction.

At post-treatment evaluation, as rated by the male psychiatrist assessor, both primary and secondary orgasmic dysfunction groups showed equal improvement on sexual feelings ($t = \cdot 98$) and sexual performance ($t = \cdot 30$). At follow-up, however, secondary dysfunctional women were rated significantly better than primary dysfunctional women on both feelings ($t = 2 \cdot 49$; $P < \cdot 05$) and performance ($t = 4 \cdot 71$; $P < \cdot 001$). This was due to the fact that after treatment the secondary dysfunctional women continued to improve on both feelings and performance. The increase between post-treatment and follow-up was significant for the secondary dysfunctional women on both feelings ($t = 3 \cdot 94$; $P < \cdot 01$) and performance ($t = 4 \cdot 27$; $P < \cdot 01$), while the primary dysfunctional women did not maintain their improvement at follow-up and had less positive ratings on feelings and performance. The decrease for the primary dysfunctional women was significant on performance ($t = 2 \cdot 77$; $P < \cdot 05$) but not significant on feelings ($t = 1 \cdot 36$).

DISCUSSION

Although reliance on self-report measures of improvement usually biases results in the direction of favourable outcomes, good

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consistency between the ratings of patients, husbands, and assessors in terms of improvement on target symptoms supports our findings.

The patients were treated for an average of 22 sessions. Those who were treated for less than 20 sessions were either deemed totally recovered by their therapist and themselves, or else felt they wanted to terminate therapy (most often after some improvement had occurred) even though further gains with treatment were, in the therapist's opinion, still possible.

In this study, it is difficult to determine the value and necessity of the husbands' presence in therapy because of their variable attendance. All three therapists thought that the husbands' presence helped to avoid and overcome misunderstandings and helped to facilitate communication between the partners. In addition, the therapists concluded that massive 'resistance' (in the form of avoidance behaviour, such as failure to follow instructions) on the part of some of the 'absent' husbands might have been avoided, if they had been present at all therapy sessions.

Although the treatment period extended for more than ten weeks, the ITG and DTG can be cautiously compared. The absence of substantial improvement during a ten-week waiting period in patients with at least one year of unremitting anorgasmia is not surprising: Kinsey (1966) found that, of women married for one year, the rate of decline in the percentage of those remaining anorgasmic slows dramatically to about 4 per cent a year. Our patients, who in many cases had been anorgasmic for several years, testified that the condition had remained the same or had become worse in the year preceding treatment (with one exception). Keeping people on a waiting list for more than three months seemed unethical under these circumstances.

The criteria of attaining orgasm during at least 50 per cent of coital attempts (which might include simultaneous clitoral stimulation with intercourse) and 'satisfactory' sex relations at least 50 per cent of the time were chosen arbitrarily, but demonstrate an appreciation of the belief that orgasmic response from intercourse alone, without additional direct clitoral stimulation, may be an unreasonable universal goal from a biological standpoint. There may be women who are anorgasmic when intercourse is unaccompanied by simultaneous clitoral stimulation who may represent only a normal variant of human female sexual response (Kaplan, 1974). It does seem that both measures should be included, since treatment can affect judgement about what is enjoyable and satisfactory, without affecting orgasmic response patterns (McGovern, 1975).

In regard to changes in sexual symptomatology as measured by the Sex Adjustment Form, the highly significant differences found between treatment and waiting list periods, while remaining significant on several dimensions, did narrow somewhat at follow-up, with some slight return of negative feelings toward sex, accompanied by a maintenance of increases in positive feelings. While the finding is not easily explained, several of our patients were not completely comfortable with their sexual lives at the time treatment was terminated, and it has been noted that incomplete treatment may predispose to relapses (Eysenck, 1963). It also seems clear that pleasurable sexual arousal and anxiety are not strictly incompatible. This may have implications for theories of counterconditioning involving these two responses (Wolpe, 1958).

Several authors (Masters and Johnson, 1970; Brenton, 1972; McGovern *et al*, 1975) have investigated the primary and secondary orgasmic dysfunction differentiation for its therapeutic prognostic value. This study has found that although both primary and secondary dysfunctional women fared equally at post-treatment assessment, at follow-up the secondary dysfunctional women continued to improve whereas the primary dysfunctional women regressed. However, these results do not substantially contribute to resolving the controversy; this is because of the small sample size and because of some post-hoc suggestion that several primary anorgasmic patients had marital problems which they had not initially revealed.

It appears that when significant non-sexual problems are present and are substantially contributing to sexual difficulties, twenty visits

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may be too little time to deal adequately with the priorities of marital discord and then successfully treat the sexual dysfunction *per se*. Since apparently so few sexually dysfunctional couples can be treated solely for their sexual complaints, the present investigators agree with McGovern (1975) that couples must either be highly selected for marital harmony (if treatment for a sexual dysfunction is to be attempted directly and immediately) or first be treated for their interpersonal problems. Since marital and sexual problems are most often inextricable, the combined problem should probably be treated by the same therapist or therapy team, as indicated. Time allowance will then have to be made as the goals become expanded.

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