

Sexual dysfunction associated with infertility

A comparison of sexual function during the fertile and the non-fertile phase of the menstrual cycle

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Summary

In a study of 40 couples with primary infertility, the 'need to perform' over the fertile phase of the menstrual cycle was assessed. In 50% of women there was a statistically increased incidence of sexual dysfunction during this phase; loss of libido was the commonest dysfunction. In 30% of men a decrease in sexual function was experienced during the fertile phase of their partner's cycle, and 75% of men reported premature ejaculation during intercourse in > 10% of occasions — this was unaltered by the diagnosis of infertility. The frequency of intercourse was increased over the fertile phase. No correlation was found between sexual dysfunction and the identified infertile sexual partner.

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'The absence of sexual desire in women and the absence of pleasure in the sexual act are powerful influences making for sterility.'

— Matthews Duncan, 1884¹

As early as 1884 Duncan¹ said the loss of libido and sexual satisfaction played a role in infertility. Many couples, who have a satisfactory sexual relationship, find that their sexual pleasure and function can be impaired when they have to 'perform on demand'.²

A pilot study was carried out to establish whether the need to perform affected sexual function and whether there were any changes in sexual performance during the fertile and non-fertile phases of the menstrual cycle. Sexual function before the onset of infertility was also explored. There has been no well-controlled study to date to determine the frequency of sexual problems in infertile couples or the exact relationship between infertility and sexual problems.³

Patients and methods

The study group comprised 40 couples with primary infertility attending the Infertility Clinic at Johannesburg Hospital. Informed consent was obtained from the patients and all cases of secondary infertility were excluded from the study. The mean age of the women taking part in the survey was 28,8 years and that of the men was 32,25 years. The mean duration of the infertility was 4,46 years.

A detailed questionnaire was administered to both men and women. For women it included questions on the percentage of

occasions during intercourse in which orgasm occurred; libido was assessed on a 5 point scale — always, very often, quite often, seldom, never; dyspareunia and vaginismus were noted; and sexual satisfaction was also measured on a 5-point scale — extremely satisfied, very satisfied, moderately satisfied, not very satisfied, not at all satisfied. The questionnaire for men included questions on erection and ejaculatory problems, i.e. premature ejaculation, retarded ejaculation and inability to ejaculate; the frequency of intercourse was established; a comparison was made between the fertile and non-fertile phase of the partner's cycle; and sexual performance before the diagnosis of infertility was assessed.

Results

Fifty per cent of the women in the survey reported increased sexual dysfunction during the fertile phase compared with the non-fertile phase of the cycle (Fig. 1). This was found to be statistically significant (Fisher's exact probability test). The most common sexual dysfunction was loss of libido alone or in association with decreased orgasmic response and diminished sexual satisfaction (Fig. 2). Orgasmic dysfunction and decreased sexual satisfaction were not significantly altered during the fertile phase compared with the non-fertile phase. Ninety per cent of women achieved sexual satisfaction (Fig. 1). Orgasmic dysfunction occurred in 15% of cases and in 12% of these it was also associated with a loss of libido. From Fig. 1 it can be seen that the frequency of intercourse was increased during the fertile phase of the menstrual cycle in significantly more women than those in whom it was decreased. The incidence of dyspareunia was not significantly increased and occurred in 37,5% of patients before the diagnosis of infertility and actually decreased to 35% during the fertile phase and further decreased to 32,5% in the non-fertile phase (Fig. 3). Vaginismus occurred in only 4 cases.

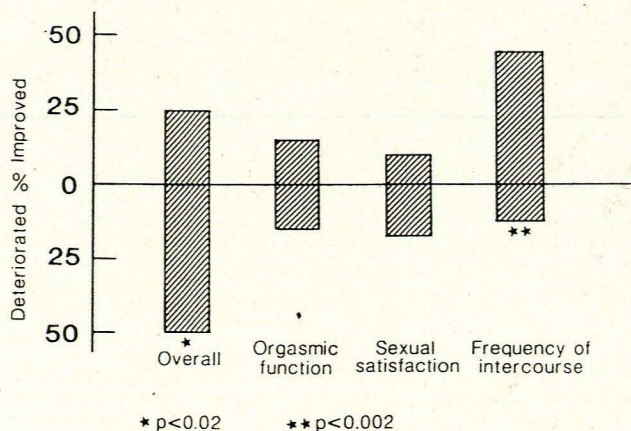


Fig. 1. Percentage of women who reported a deterioration (below the line) or improvement (above the line) in sexual function during the fertile compared with the infertile phase of the menstrual cycle.

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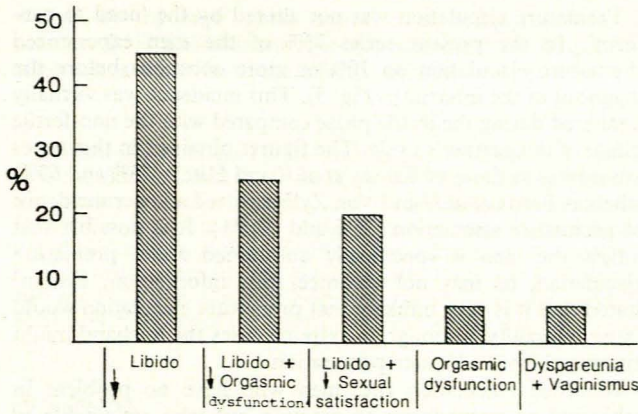


Fig. 2. Type of female sexual dysfunction.

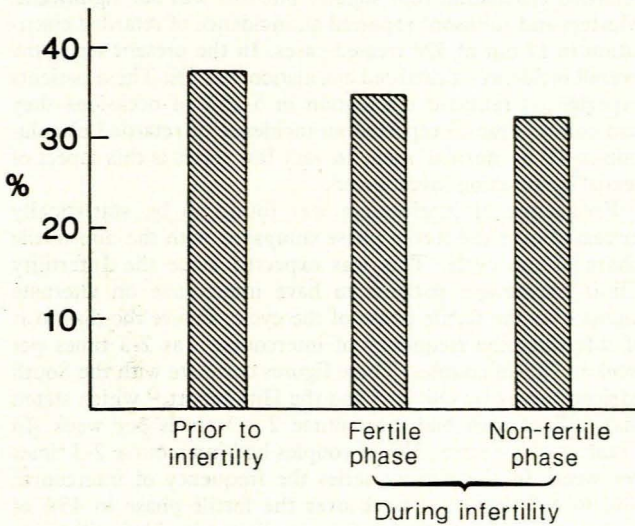


Fig. 3. Incidence of dyspareunia.

Thirty per cent of the men had deterioration in sexual function during their partner's fertile phase compared with the non-fertile phase of the menstrual cycle, while 15% had an improvement in sexual function (Fig. 4). Ejaculatory dysfunction and sexual satisfaction accounted for a small percentage of sexual dysfunction (Fig. 4). Sexual satisfaction was experienced by 97.5% of males in this study (Fig. 4). Premature ejaculation was not altered by the need to perform. Seventy-five per cent of men in this series experienced premature ejaculation on 10% or more occasions before the diagnosis of the infertility. This incidence was virtually unaltered during their partner's fertile phase compared with the non-fertile phase of the menstrual cycle (Fig. 5).

Discussion

Although it has been suggested by some authors that the 'need to perform' may cause sexual dysfunction in both the man and the woman,^{2,4,5} there has been no well-controlled study to determine the frequency of sexual problems in infertile couples or the exact relationship between infertility and sexual problems.³ Reported incidences of psychosexual problems vary from 25%⁶ to 42%⁷ and 47%.⁸

In the present study 50% of women had a statistically increased incidence of sexual dysfunction during the fertile

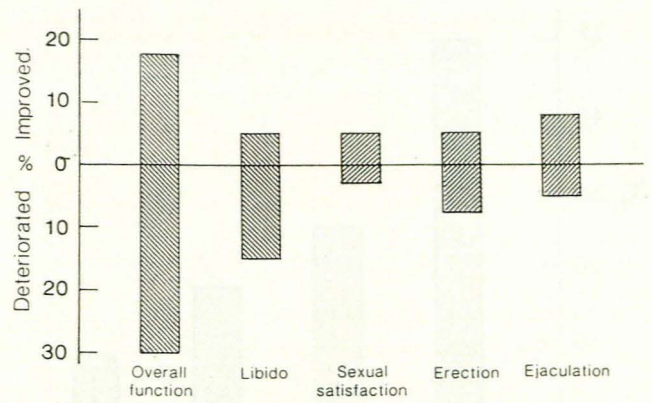


Fig. 4. Percentage of men who reported a deterioration (below the line) or improvement (above the line) in sexual function during the fertile compared with the non-fertile phase of the partner's menstrual cycle.

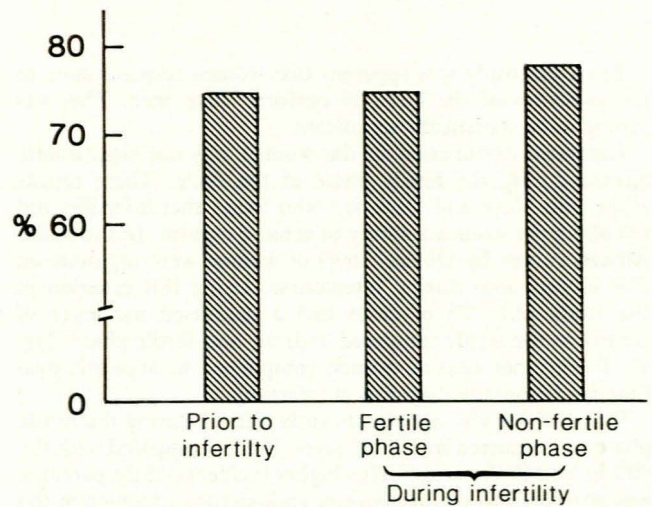


Fig. 5. Incidence of premature ejaculation.

phase compared with the non-fertile phase. Loss of libido was found to be the most common dysfunction in 45% either alone or in combination with a decreased frequency of orgasm in 25% and a decreased incidence of sexual satisfaction in 20% (Fig. 2). The loss of libido may be related to the woman's feelings of inadequacy in not being able to conceive and her associated feelings of failure as a wife and a potential mother. Keye⁵ postulates that women experience decreased libido because they view themselves as socially and sexually unattractive and non-desirable. This in turn can lead to a decreased sexual drive, a decreased ability to respond sexually or a decreased ability to enjoy sex. An increase in libido was noted in 25% of women in this study. This could be explained by the patient's hope that she would conceive during the fertile phase.

One report⁵ found no alteration in orgasmic dysfunction or libido in women who were infertile. Van Zyl⁷ found a 25.6% incidence of decreased libido. Impaired sexual function was found more commonly among men than women.⁹ The discrepancy in incidence in Van Zyl's⁹ sample compared with the present series may be explained by the fact that Van Zyl's patients attended an andrology clinic and not an infertility clinic.

In the present study the incidence of sexual dysfunction in men was 30%, which was not statistically significant (Fig. 6). Loss of libido was the most common dysfunction in the men and occurred in half the patients.

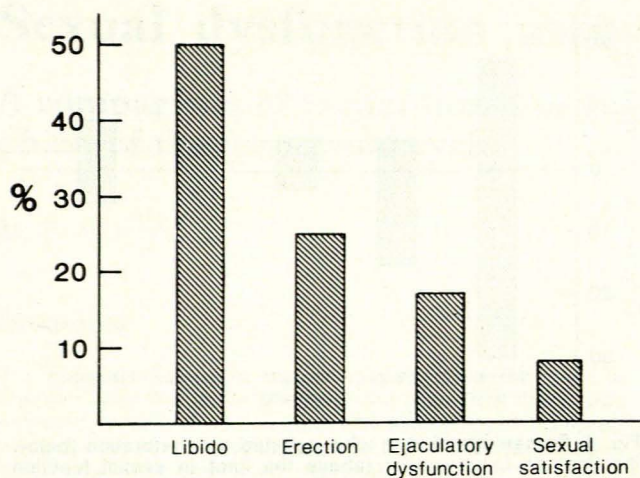


Fig. 6. Type of male sexual dysfunction.

From the study it is apparent that women respond more to the pressures of the 'need to perform' than men. This was proved to be statistically significant.

Orgasmic dysfunction in the woman was not significantly altered during the fertile phase of the cycle. These results agree with Keye and Deneris,³ who found that infertility did not affect the woman's ability to achieve orgasm. In the South African survey by Olivier¹⁰ 60% of women were orgasmic on 50% of occasions during intercourse. Using this criterion in the study only 5% of cases had a decreased incidence of orgasm in the fertile compared with the non-fertile phase (Fig. 1). Twenty per cent of women complained of orgasmic dysfunction before the diagnosis of infertility.

Dyspareunia was not significantly altered during the fertile phase and occurred in 35% of cases (Fig. 3) compared with the 50% in Van Zyl's series.⁷ This higher incidence of dyspareunia was attributed to the presence of endometriosis,⁹ which in the present study was not evident. Vaginismus was little affected in this study and was found to be increased in only 1 patient during the fertile phase of the cycle. This compares favourably with other series.⁷

Sexual satisfaction can be achieved without necessarily having an orgasm. Emotional intimacy, tenderness, closeness and the sharing of deep feelings with a loved one are important factors in the woman experiencing sexual satisfaction.¹¹ Sexual satisfaction was experienced by 90% of women (Fig. 1) and 97.5% of men over the fertile phase of the cycle (Fig. 4). In general, sexual satisfaction occurs in 86% of women and 85% of men.^{12,13} In the series reported by McGrade and Tolor¹⁴ only 59% of women felt that their sex life was enjoyable compared with 73% of men.

Erection problems in the male occurred in only 3 cases over the fertile phase — 7.5% (Fig. 4). This figure is less than the series of Van Zyl⁹ and was not found to be the most common cause of male infertility as suggested by other authors.

Frank *et al.*¹² found that in normal men 7% had problems achieving an erection and 9% in maintaining it. None of the men in the present series had any difficulty in maintaining an erection. It should be noted that 66% of men complain of having difficulty in obtaining an erection on one or more than one occasion.¹³

The prevalence of impotence, premature or delayed ejaculation is not significantly affected by infertility.³ The present study would agree with these findings. Situational impotence may arise when the couple are asked to have a post-coital examination or the man is required to produce semen for analysis.

Premature ejaculation was not altered by the 'need to perform'. In the present series 75% of the men experienced premature ejaculation on 10% or more occasions before the diagnosis of the infertility (Fig. 5). This incidence was virtually unaltered during the fertile phase compared with the non-fertile phase of the partner's cycle. The figures obtained in this series are similar to those of Kinsey *et al.*¹⁵ and Hite¹³ (75% and 69%) whereas Frank *et al.*¹² and Van Zyl⁷ reported a lower incidence of premature ejaculation (36% and 13.5%). It is possible that unless the man is specifically questioned about premature ejaculation, he may not volunteer this information. Elstein² stated that it is very unlikely that premature ejaculation would cause infertility, although in extreme cases the husband might ejaculate before adequate penetration.

Retarded ejaculation (i.e. men who have no problem in achieving or maintaining an erection but who are unable to ejaculate) occurred in a few cases before the diagnosis of infertility. During the partner's fertile phase the incidence of retarded ejaculation rose slightly but this was not significant. Masters and Johnson⁸ reported an incidence of retarded ejaculation in 17 out of 520 treated cases. In the present series the overall incidence of retarded ejaculation was 5%. These patients experienced retarded ejaculation in 5-25% of occasions they had coitus. Frank¹² reported an incidence of retarded ejaculation in 4% of 'normal' men. In very few series is this aspect of sexual dysfunction investigated.

Frequency of intercourse was found to be statistically increased over the fertile phase compared with the non-fertile phase of the cycle. This was expected since the Infertility Clinic encourages patients to have intercourse on alternate nights over the fertile phase of the cycle. Before the diagnosis of infertility the frequency of intercourse was 2-3 times per week in 70% of couples. These figures correlate with the South African survey by Olivier¹⁰ and the Hite report,¹³ which stated that 52% of men had intercourse 2-3 times per week. In Frank *et al.*'s¹² series 31% of couples had intercourse 2-3 times per week. In the present series the frequency of intercourse rose to 4-5 times per week over the fertile phase in 45% of cases compared with 20% before the diagnosis of infertility.

No correlation could be found between sexual dysfunction and the identified infertile sexual partner (Fig. 7). Infertility was diagnosed in 10 women, 6 men and in 24 cases both the man and woman were infertile. It is evident that there is no significant change in the incidence of sexual dysfunction in the

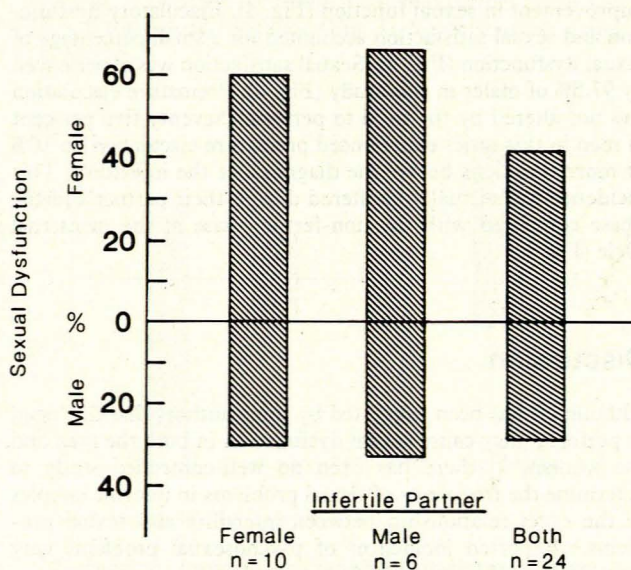


Fig. 7. Sexual dysfunction during the fertile phase compared with the non-fertile phase relative to the infertile partner.

woman or the man when identified as being the infertile partner. It is also evident that the infertility *per se* did not affect sexual function of the infertile partner.

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