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The Effectiveness of Cognitive Therapy in the Treatment of Non-Psychotic Morbid Jealousy

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Background. Although a cognitive–behavioural formulation of morbid jealousy has been described there is little empirical research into the practical usefulness of this model. This study evaluated the effectiveness of treating non-psychotic morbid jealousy using a cognitive approach.

Method. Cognitive–behavioural and emotional measures of jealousy were calibrated by comparison with 40 non-jealous normal controls. These instruments were used as measures of change to assess the effectiveness of cognitive therapy in altering cognitive errors in 30 morbidly jealous out-patient referrals, divided into delayed and immediate treatment subgroups to assess the stability of the condition. Both groups completed all measures immediately before and after treatment, and at follow-up.

Results. The instruments demonstrated significant differences between jealous and non-jealous subjects on cognitive–behavioural and emotional aspects of jealousy. The delayed treatment group showed no significant alteration in scores on any of the instruments after 12 weeks on the waiting list, confirming the stability of the condition. In the majority of cases cognitive therapy aimed at the modification of dysfunctional cognitive processes resulted in a significant improvement on all jealousy measures, immediately after treatment and at follow-up. The improvement reported by patients was supported by the partner's ratings.

Conclusion. The results support the postulation of the cognitive model that modification of cognitive schema by a schema-focused treatment package results in a significant reduction in disturbance in all aspects of the jealousy syndrome.

Morbid or pathological jealousy occupies an ambiguous and marginal position in contemporary psychiatry and issues of treatment are surrounded by therapeutic pessimism. Delusional forms of the disorder have received most attention and several authors cite neuroleptic medication (Mooney, 1965; Dominik, 1970; Munro, 1984) and electroconvulsive therapy (Todd & Dewhurst, 1955; Dominik, 1970) as effective treatments in some of these cases. Where jealousy occurs in the context of other major psychiatric disorder the underlying process becomes the focus of treatment (Shepherd, 1961; Enoch & Trethowen, 1979; Mullen, 1990). Much of the literature on the treatment of non-delusional morbid jealousy concentrates on the development of individual and interpersonal awareness and the use of communication-negotiation skills (Teismann, 1979). Jealousy workshops designed to promote joint problem solving (White & Mullen, 1989) and couple therapy (Teismann, 1979; Im *et al*, 1983; Crowe & Ridley, 1990) have also been advocated. Cobb & Marks (1976) reported some success in treating four cases of morbid jealousy using a behavioural approach. The cognitive model, proposed by Tarrier *et al* (1990), provides a useful framework for the development and use of cognitive techniques but there are little empirical data to support it. The only published study using these techniques reported some success in an uncontrolled study of 13 morbidly jealous subjects (Bishay *et al*, 1989). However, that study included cases of delusional and non-delusional jealousy and cognitive therapy was used in conjunction with chemotherapy.

The present study set out to evaluate the usefulness of cognitive therapy in the treatment of non-psychotic morbid jealousy, using a number of instruments specifically designed for the study. These measures were calibrated against the responses of a group of non-jealous subjects recruited from the general population; the results are described in earlier work (Dolan, 1992).

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Method

The study group initially consisted of 40 'morbidly jealous' patients referred by their GPs (34), psychiatrists (2) and psychologists (4), to an out-patient clinic run at North Manchester General Hospital. Referrers and potential cases became aware of the service through advertisements placed in health centres (12) and a national women's magazine (28). Those with neurotic jealousy (as agreed by the assessor MD and therapist NB) were interviewed and invited to participate in the study. The exclusion criteria employed were a recent history of drug/alcohol dependence, organic brain disease, psychotic illness and major affective disorder. The definition of morbid jealousy was an excessive unfounded preoccupation with the partner's fidelity which led to significant personal and interpersonal dysfunction.

Demographic data was collected on age, sex, ethnic origin, marital status and occupational status. During a semi-structured interview details pertaining to previous medical/psychiatric history, level of substance abuse, duration of problem jealousy, previous treatment sought and the reason for the current presentation were obtained from the morbidly jealous group.

Procedure

Thirty-eight subjects agreed to participate in the treatment study. A subgroup of the index group (15) were allocated to a waiting list for 12 weeks to assess the stability of the condition. The remainder (23) entered treatment within two weeks of being seen. All subjects were asked to complete a battery of standardised and non-standardised questionnaires evaluating the cognitive, emotional and behavioural aspects of the jealousy complex. These instruments were used as measures of change and were completed on entry, after completion of treatment, and at follow-up. Although selection began on an alternate basis requests by patients to enter treatment urgently led to a greater number of cases being allocated to the immediate treatment group.

Instruments

The measures used to assess the severity of the emotional aspects of jealousy included the Beck Depression Inventory (BDI), the Beck Anxiety Inventory (BAI) (Beck, 1983) and the Hospital Anxiety and Depression Scale (HADS; Zigmund & Snaith, 1983).

Non-standardised cognitive and behavioural measures included the sexual jealousy questionnaire (SJQ; Shrestha *et al*, 1985), the scale for tenacity of a jealous belief (TEN), the morbid jealousy thoughts questionnaire for men/women (MJQ) and the jealousy interpretation questionnaire (JIQ). In addition, spouses and partners were asked to rate the frequency, severity and impact of jealousy on the relationship using the spouses jealousy questionnaire (SPQ). The nature and composition of these instruments are described in previous work (Dolan, 1992).

Treatment

The cognitive techniques used in this study were based on Tarrier *et al*'s (1990) formulation. The therapist elicited faulty assumptions (schemata) and identified environmental factors associated with their development. The origin of feelings of inferiority or unattractiveness were examined in a similar way. Where appropriate, guilt related to previous infidelity on the part of the patient was explored. For cases where guilt was related to the patient's realisation that they had been maltreating their partner the therapist attempted to ameliorate these feelings by acknowledging constructive attempts at dealing with the problem.

The aim of treatment was to help the patient realise the irrationality of their faulty assumptions and assist them in recognising the unreasonable manner in which they were treating their partner. Finally patients were taught strategies to help them control their emotions and behaviour.

Homework assignments involved repetition of appropriate self statements when jealous thoughts emerged. Taped therapy sessions or a written summary of rational self statements assisted in this process of change.

The number of sessions varied depending on the severity of the problem. In this study each session lasted 50 minutes and the total number of sessions were recorded at the end of treatment.

Analysis

The data were analysed using SPSS/PC+. Statistical methods included the χ^2 test, Mann–Whitney U test and the Wilcoxon matched pair test. A probability level of <0.05 was considered significant.

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Results

Subject characteristics

The majority of the patient group ($n=40$) were women (28) and almost all (36) were in a long-term relationship at the time of study. Ages ranged from 17 to 66 years with a mean of 31 years. Over half the sample were employed outside the home. The majority of cases (29) reported long standing problems with jealousy. During the assessment interview all reported some degree of emotional upset. Most cases (33) had only sought help following an ultimatum or threat from their partner and 10 admitted that their jealousy had resulted in a temporary break-up of their current relationship at some point. There were no significant differences in the demographic data of the patient group and the comparison group whose responses were used to calibrate the measures.

During the period of study (July 1989–July 1992) 38 of the 40 suitable referrals participated in the treatment trial. Fifteen were allocated to the 'delayed treatment' group and 23 to an 'immediate treatment' group. Eight subjects dropped out before completion of the study. Dropouts from the delayed treatment group included two patients who presented to their GPs and were treated with antidepressant medication and two others who defaulted from treatment after one session, one because of breakdown of the marital relationship. Of the 23 subjects in the immediate treatment group four stopped attending the clinic prematurely. One of the latter emigrated and three others were unwilling or unable to attend the clinic. The remaining 19 were available to complete follow-up questionnaires. Of the original 38 recruits, 30 completed the assessment through all stages.

There were no significant differences between immediate and delayed treatment groups for age, sex, marital and employment status or duration of problem jealousy. All subjects were Caucasian. Females outnumbered males in both groups. The majority of subjects in the delayed (13) and immediate treatment (21) groups were in a relationship at the time of the study and most (36) had no previous history of contact with the psychiatric services for their jealousy or other psychiatric disorder. Two cases had treatment for depression in the past. Fifteen of the 23 cases in the immediate treatment group and 12 of the 15 in the delayed treatment group had problem jealousy of over five years' duration.

Analyses of patient scores on entry to treatment

None of the patient group attained the maximum score of 20 on the tenacity scale, a score which would have indicated jealous beliefs of delusional intensity. However, they had high scores on measures (MJQ) examining erroneous statements about sexual behaviour and attractiveness. Although most realised their jealous thoughts were unfounded, over a quarter (13) were constantly preoccupied with the idea that their partner would have an affair or would love someone else (danger/fear related schema). A high proportion (21) were concerned with not allowing their partner to fool them (an anger related schema). Patients also demonstrated an idiosyncratic tendency to misinterpret neutral or ambiguous situations as a threat to the relationship with their partner (JIQ). Jealous behaviours were frequent with nearly half the patients admitting wanting to harm their partner, spying on them or attempting to catch them out. Seventeen patients had considered hiring a private investigator and 11 had followed their partner (SJQ). The spouses questionnaire confirmed patient reports of a high rate of jealous reactions and behaviour.

The effectiveness of cognitive therapy

Four of the 15 subjects who had been assigned to a delayed treatment group dropped out of the study. For the remaining 11 subjects no significant alteration in scores was noted after 12 weeks on the waiting list. None of the group received any form of therapy during this time.

Pre-treatment v. post-treatment scores

Patients attended between one and six sessions (mean 3.8 sessions). Thirty subjects completed the cognitive–behavioural and emotional measures (MJQ, JIQ, TEN, SJQ, BAI, BDI, HAD). The spouses questionnaire was completed in 29 cases. Statistically significant reductions in the median scores on *all* test items were observed following treatment (see Table 1). Approximately 26 had improved scores on standardised emotional measures (BAI, BDI, HAD) with 14 halving their pre-treatment rating. On the cognitive measures, 28 had reduced scores with 19 demonstrating a 50% drop in score. All 30 subjects showed a reduction in jealousy associated behaviours as measured by the SJQ with the majority (25) showing a 50% drop in their pre-treatment score on this instrument.

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Table 1
Pre-treatment, post-treatment and follow-up scores on each instrument

Test	Pre-treatment Median (Interquartile) (range) [n=30]	Post-treatment Median (Interquartile) (range) [n=30]	Significance*	Follow-up Median (Interquartile) (range) [n=30]	Significance**
JIQ	8 (7–10)	2.50 (1–6.25)	$P<0.001$	2 (0–6)	NS
HADS	21 (15–28)	12 (10–17.5)	$P<0.001$	11 (9–15)	$P<0.05$
TEN	6 (3–10.5)	1 (0–4)	$P<0.001$	1 (0–4)	NS
SJQ	15 (6.75–24)	5 (1–9)	$P<0.001$	5 (2–9)	NS
MJQ	65 (47–76.25)	33 (16.75–40.25)	$P<0.001$	30 (20.5–42)	NS
BDI	18 (11–23.5)	8.50 (6–17)	$P<0.001$	8.50 (6–16.25)	NS
BAI	20 (8–30.25)	7 (4–9.25)	$P<0.001$	6.5 (3.75–11.25)	NS
SPQ	38 (30–49)	18 (12–28)	$P<0.001$	19.5 (8.5–27.5)	NS

Wilcoxon matched pairs (2 tailed). *Comparison pre-treatment and post-treatment scores; **Comparison post-treatment and follow-up scores.
JIQ, Jealousy Interpretation Questionnaire; HADS, Hospital Anxiety and Depression Scale; TEN, Tenacity of a Jealous Belief; SJQ, Sexual Jealousy Questionnaire; MJQ, Morbid Jealousy Thoughts Questionnaire; BDI, Beck Depression Inventory; BAI, Beck Anxiety Inventory; SPQ, Spouses Jealousy Questionnaire.

Total scores on the spouses questionnaire fell in 28 cases. In 16 of these cases the partner reported a post-treatment score which was half that on entry. On the sub-scale of the SPQ measuring the impact of jealousy on the relationship, the improvement criterion developed by Marks *et al* (1975) was adopted. A reduction of four or more points on the eight point scale was considered 'much improved', between 2 and 4 points 'improved', and less than 2 points 'not improved'. According to this sub-scale the relationship was much improved in 11 cases and improved in 10 others. Eight cases were rated as not improved. In essence, although partners acknowledged that the frequency and severity of jealous behaviours had fallen, a small number felt their partner's previous jealousy had damaged the relationship.

Examination of responses to individual statements on the MJQ indicated significant reductions in the numbers believing their partner would leave them (eight pre-treatment *v.* none post-treatment; $\chi^2=7.06$, $P<0.01$, d.f. = 1) or become involved with another (10 pre-treatment *v.* none post-treatment; $\chi^2=9.72$, $P<0.01$, d.f. = 1). Similarly, on specific questions addressing erroneous schema (e.g. he/she like other men/women will be unfaithful) a substantial reduction was observed in the numbers reporting this belief (16 pre-treatment *v.* three post-treatment; $\chi^2=11.09$, $P<0.001$, d.f. = 1).

Analysis of the JIQ scores showed that treatment resulted in an increase in the median number of subjects reporting benign responses as opposed to threat responses and consequently a statistically significant reduction in the overall score on this instrument (Wilcoxon matched pairs test, $z=-4.67$, $P<0.001$, d.f. = 1).

Significant reductions in the number of subjects reporting checking behaviour on the SJQ e.g. searching the partners' belongings (25 pre-treatment *v.* 13 post-treatment; $\chi^2=8.86$, $P<0.01$, d.f. = 1) or listening in on telephone conversations (26 pre-treatment *v.* 12 post-treatment; $\chi^2=12.13$, $P<0.001$, d.f. = 1) were observed. A large number reported a reduction in the frequency of their feelings of anger towards their partner (23 pre-treatment *v.* 10 post-treatment; $\chi^2=9.69$, $P<0.01$, d.f. = 1).

Post-treatment v. follow-up scores

Twenty-three subjects attended follow-up appointments and a further seven forwarded postal questionnaires on request. The average period of follow-up was 4.9 months (range 3–6 months). There was no significant difference in the dropout

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rate or attendance record in the delayed and immediate treatment groups at follow-up. Comparison of scores on the various measures immediately after treatment and at follow-up indicated no significant change apart from a further reduction in the score on the HAD scale ($z = -2.37$, $P < 0.05$, d.f. = 1).

When each individual subject's score was compared post-treatment and at follow-up, and rated as improved only if the score remained static or fell, the data indicated that the majority of subjects continued to maintain their post-treatment scores on each measure. Although a small number scored slightly higher on some measures the change was not significantly different from their post-treatment scores. Analysis of the SPQ total score indicated that improvement was maintained at follow-up with 23 partners rating the impact of jealousy on the relationship as 'improved' or 'much improved' according to Marks *et al*'s (1975) categories described earlier.

Although the numbers in this study were small the results indicated that treatment aimed at modifying cognitive distortions resulted in significant improvement in all aspects of the condition and this improvement was maintained at follow-up. Factors like age, sex, marital and employment status, duration of problem jealousy and number of sessions attended did not significantly influence response to treatment when overall outcomes were based on the criterion of a 50% reduction in score on at least five of the instruments.

Discussion

Methodological issues

The patient group was predominantly female and of Caucasian extraction probably as a result of the recruitment process. Interestingly, few of our subjects had been referred for treatment prior to the study despite long histories of problem jealousy. This would seem to suggest a general lack of awareness of suitable treatment approaches for patients with non-delusional jealousy and a paucity of available treatment programmes for this group. Within the context of current ambivalent social attitudes to jealousy we were also somewhat surprised that so many of our patients were still in long-term relationships given the frequency of their reports of domestic disharmony.

The study provided some support for Tarrier *et al*'s (1990) proposal that a cognitive model could be used as a therapeutic tool in morbid jealousy. Indeed the measures specifically designed to assess the nature and frequency of erroneous sexual behaviour/attractiveness schema successfully identified common and recurring cognitive distortions and misconceptions which could be addressed in treatment. However, the analysis of the pre-treatment scores on the instruments suggested danger-related schema may have been underestimated in Tarrier *et al*'s (1990) formulation.

The observation that no significant changes occurred in scores on any of the test items after 12 weeks on a waiting list seems to suggest that non-psychotic morbid jealousy is a relatively stable condition. It should be acknowledged, however, that the numbers in the delayed treatment group may have been too small to detect such changes. Although it is known that hidden selection processes operate before patients are accepted for treatment in controlled treatment trials (Goldberg & Huxley, 1980) we were unable to detect significant biases in the clinical or demographic characteristics of subjects allocated to the delayed or immediate treatment groups.

Efficacy of treatment

Evaluation of the progress and outcome on specific measures following cognitive therapy supported the central hypothesis of the cognitive model that modification of the cognitive schemata, by a schema focused package, would result in a significant reduction in disturbance in all aspects of the jealousy syndrome. The improvement reported by patients following treatment was supported to a large extent by the partners' ratings on the SPQ. It is possible that in some cases where scores remained high on the impact of jealousy sub-scale the partners were unable to forgive past unfounded accusations and jealous behaviours. The finding that scores on the instruments at the end of treatment and follow up did not differ significantly also suggests patients were able to maintain improvement outside the therapeutic setting. However, the active therapeutic ingredients of this process remain unknown as these were not specifically examined in this study. Perhaps the subjects themselves are rehearsing some of the cognitive strategies used during treatment in order to maintain improvement. Although we had anticipated that those with a shorter history of jealousy and a marital relationship status would have a better outcome, the results did not support this hypothesis. The duration and frequency of sessions attended also appeared to have little obvious influence on outcome. Perhaps the numbers participating in the study were too small to

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detect key predictive factors or the chosen cut-off measures of improved outcome were too strict and therefore difficult to achieve.

Limitations of the present study and suggestions for future research

Although the instruments employed proved useful in assessing sexual behaviour schema in jealousy the role of fear and danger-related schema needs further investigation. Aside from the jealousy interpretation questionnaire, which specifically explores threat responses, only four of the statements on the MJQ examined such schema. We would also suggest the inclusion of separate measures of anger and hostility in view of the high numbers reporting aggressive thoughts/behaviour towards their partners in our sample. In view of the recognised importance of the partner's conduct in reinforcing or aggravating jealous behaviour it may also be useful to explore cognitive–behavioural techniques within a couple therapy setting. The relatively high rates of reported anxiety and depressive symptoms in this population suggest a potential role for a combined treatment approach using cognitive techniques and pharmacotherapy, particularly SSRIs.

Clinical implications

- A cognitive model provides a useful assessment and therapeutic tool for non-psychotic morbid jealousy.
- Modifying cognitive distortions in jealousy results in a reduction in the emotional and behavioural components of the morbid jealousy syndrome.
- Patients can learn cognitive strategies to maintain improvement outside sessions.

Limitations

- The sample size was small and follow-up relatively short.
- The active therapeutic ingredients were not specifically measured.
- Lack of control for non-specific therapist contact.

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