

The worried well: their identification and management

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... here in this unfortunate extreme, if but a pimple appears or any slight ache is felt, they distract themselves with terrible apprehensions . . . And so strongly are they for the most part possessed with this notion that any honest practitioner generally finds it more difficult to cure the imaginary evil than the real one.

Freind, 1727 [1]

Recent surveys of psychiatric and psychological disturbance among patients attending sexually transmitted disease (STD) or genito-urinary medicine (GUM) clinics have shown rates of 20–45 per cent morbidity [2–6]. Examples of disorders revealed in these surveys include affective and personality disorders, psychosexual dysfunctions and disorders associated with physical symptoms (for example, primary hypochondriasis, dysmorphophobia, obsessive compulsive and monosymptomatic hypochondriacal psychotic states [7])

An important sub-set of these patients have somatic symptoms misattributed by them to some form of STD. MacAlpine [8] describes 24 patients suffering from 'syphilophobia', in which the patient presents with a wide spectrum of physical symptoms which are expressions of their morbid fear or conviction of being infected, yet with no objective evidence of infection or disease upon examination. Frost [9] described 36 patients suffering from hypochondriasis. His presentations featured morbid bodily concern (with disease phobia, psychogenic pain and misperception and misinterpretation of physical symptoms), and abnormal illness behaviour (failure to be reassured by medical staff and demands for further investigation, affective distress and psychological defensiveness). Other reports [10–13] have described similar conditions associated with STDs, variously referred to as 'hypochondriasis', 'nosophobia', 'venereophobia' and 'pseudo AIDS'. Over 30 per cent of patients present with these symptoms.

The 'worried well' are patients suffering the conviction

that they have symptoms of infection associated with human immunodeficiency virus (HIV), the causative agent of acquired immune deficiency syndrome (AIDS), despite remaining infection free as verified by (often repeated) serological testing and clinical assessment [13–15]. As a patient group, the worried well are distinguishable from those in the general population who experience raised anxiety as a result of media coverage of HIV/AIDS, and who may as a consequence wish to be tested for anti-HIV, but who experience long-term reassurance and absence of inappropriate worry as a result of negative clinical and laboratory findings. This latter group may be described as those with 'AIDS anxiety'.

A media-generated public anxiety related to topical health concern is not a new phenomenon, although documented clinical experience of such phenomena appears to be rare in the context of diseases other than AIDS. The quote opening this paper indicates that clinicians have always had management difficulties associated with patient misperceptions of their level of risk relative to epidemic phenomena. In recent times, the public awareness of Legionnaire's disease and breast cancer, for example, has led to numerous referrals of persons convinced that they have such illnesses despite thorough clinical investigations indicating otherwise. In this respect, the appearance of the worried well appears to represent a continuum of expressed vulnerability in those members of the general population who are susceptible to media discussion of health concerns.

The worried well may present for a variety of reasons: they may have had sex with a bisexual or drug injecting man or woman in the past; they may be homosexual or have a history of (periodic) homosexual activity (frequently involving only low-risk activity); they may be psychologically vulnerable personalities responding to media reports or advertising about AIDS. The public anxiety about AIDS appears to act as a vehicle for the expression of their sexual guilt or anxiety, or of their general vulnerability [16].

Based on the clinical phenomenology, the worried well are significant for the following reasons:

1. There appears to be a remarkable consistency in both

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- presenting and background features of patients within this group, irrespective of sexuality or gender;
2. Chronically disturbed patients often become suicidal;
 3. Patients in this group require considerable amounts of clinical time in investigation and management;
 4. This population appears to represent an expression of vulnerability in previously described populations which, in the context of rapidly increasing public awareness of AIDS and routes of HIV transmission, have 'latched on' to this present major public health issue;
 5. This population provides a 'window' through which a form of heterosexual (and homosexual) reaction to the HIV pandemic can be assessed. To the present time, studies of psychosocial morbidity associated with AIDS have concentrated on the social subgroups most directly affected, such as homosexual men [17-20], haemophiliacs [21] and injecting drug users [22].

Presenting and background phenomenology

A recent series of reports [14, 16, 23] have described a phenomenological study of 19 worried well patients. Each subject was assessed on protocols concerning sexual history, clinical and laboratory examinations, and psychiatric history and examination. All who consented to HIV antibody testing after counselling were found to be negative. In only two cases were there any sexual activities reported that may have led to possible HIV infection in the previous six years; they too were HIV antibody negative. This review excluded patients who showed a maintained response to appropriate health education and counselling after presenting with anxieties over their possible antibody status. An important distinction was made between 'AIDS anxiety' in which cognitive preoccupations and somatic indices of anxiety relating to recognition of risk group membership or sensationalist media reporting may have provided transient concerns over personal health, and 'the worried well' in which patients were chronically ruminative about their possible exposure to infection despite informed and sympathetic counselling, clinical physical examination and often repeated negative antibody screening. The demographic features of the 19 cases are presented in Table 1.

Presenting features

Almost all subjects showed an unshakeable and anxiety-laden conviction that they had HIV infection or disease, as indicated to them by the presence of anxiety-based physical features which they had misinterpreted as signs of HIV disease. These symptoms included fatigue, sweating, skin rashes, muscle pains, intermittent diarrhoea, slight intermittent lymphadenopathy, sore throat, slight weight loss, minor mouth infections and dizziness. In many cases this misattribution of such features to HIV disease resulted from reading media reports featuring descriptions of AIDS-related symptoms, many of which are mimicked by chronic anxiety symptoms [16]. Panic attacks were a feature of many of these presentations.

A further consistent presenting feature was the appear-

Table 1. Demographic features of 19 worried well patients.

	Number	Mean age	S	M	D	W
Heterosexuals:						
Male	6	40	2	3	1	0
Female	2	35	0	2	0	0
Bisexuals:	3	41	2	1	0	0
Homosexuals:	8	30	6	2*	0	0

*Where homosexual men were co-habiting in a stable, loving relationship by mutual assent for over 12 months, they were classified as 'married'.

S = single; M = married; D = divorced; W = widowed.

ance of obsessive-compulsive behaviours and ruminative states, specifically concerning the presence of HIV disease. Ruminations centred on images and/or thoughts of HIV disease and death, past 'high risk' sexual practices, threats presented to lovers and family members, dirtiness or infectivity of body fluid (for example, semen, saliva or urine) and the need for repeated reassurance.

Obsessive-compulsive behaviours involved responses to ruminative or obsessive thoughts such as those described above, including checking the body for Kaposi's sarcoma (KS) lesions, usually involving the counting of moles, freckles and skin blemishes, and palpating specific bodily areas to 'confirm' a swelling or pathology. Not surprisingly, such palpation itself often caused pain and swelling and exacerbated the suspicions held by the patient. Other compulsions included washing sources of contamination, such as clothes, shared bathrooms and lavatories, books, and repeated questioning and scrutinising of bodily areas of spouses/lovers for signs of HIV related disease. Rituals associated with such phenomena were primarily anxiety-reducing and not of an avoidance type: washing, palpating etc, was associated with a temporary reduction in the subjective tension concerning HIV infection.

In all but five of the 19 cases, obsessive symptoms were associated with a primary diagnosis of depression. Where this was not the case, an obsessive disorder was diagnosed. Two patients subsequently developed a delusional state regarding their supposed infection. Depressive phenomena were associated with fears or feelings of the 'inevitability' of exposure and HIV-related disease and decline, the effects of fears on the relationships in which the patient was involved, guilt at having placed themselves 'at risk' in the past and having done the same to their loved ones. Depression was associated frequently with a full somatic and cognitive symptomatology and a decline in efficiency at work and in general.

Over half the patients were suicidal and some needed acute psychiatric admission. Where suicidal activity was a presenting feature, patients had made advanced plans for suicide such as storing prescribed medications for over-dosage and making detailed arrangements for suicide in cars or on public transport. Related to this was a significant degree of substance abuse, typically alcohol or prescribed drugs. Patients took these drugs primarily to help with anxiety.

Table 2. Clinical presenting features of the worried well ($n = 19$).

Feature	Patient numbers			
	Het M ($n = 6$)	Het.F ($n = 2$)	Bi ($n = 3$)	Hom ($n = 8$)
Misinterpreted somatic features (aches, pains, etc)	6	2	3	7
Anxiety	6	2	3	8
Depression	5	2	2	5
Obsessive-compulsive	6	2	3	8
Suicidal	3	2	1	4
High clinic attendance/non-reassured	6	2	2	5
Previous negative HIV antibody tests*	5(1.4)	2(2.5)	2(2)	4(1.7)

*Numbers in brackets refer to mean tests taken in those tested.

A further conspicuous presenting feature was a high rate of recent attendance in general practice or hospital clinics in order to 'find someone who really believes me or understands my problem'. Associated with this was an often repeated inconclusive or negative clinical examination and laboratory testing for antibodies to HIV. Presenting features in this group are summarised in Table 2.

Background features

There was considerable consistency in this group with respect to issues of their sexuality. They included issues of self acceptance of homosexuality, problems in the expression of sexual desire or attachment, sometimes associated with constricting religious or familial imperatives on sexual expression. Typically, this resulted in a subsequent history of covert sexual expression and a high level of guilt associated with this. For example, in heterosexuals anxiety provoking sexual activity may have involved marital infidelity or stable emotional relationships prior to marriage which were not divulged to the subsequent spouse. In the context of homosexuality and bisexuality, only two patients were able to express their homosexuality openly, all others remaining 'closeted' for fear of social retribution. While sexual activity in this latter group did not necessarily result in a high level of sexual guilt, only one patient gave a history of sexual activity which might have placed him at high risk for acquiring HIV. Difficulties of sexual adjustment in all subjects concerned a history of 'venerophobia' in which sexual expression was constrained by the fear of acquiring STDs. This typically resulted in a history of low-risk sexual experience, particularly in recent years, for example, intermittent episodes of mutual masturbation only. Five patients had a history of prior STDs, all of which had occurred six or more years prior to intervention.

The fears associated with possible HIV infection led to significant levels of sexual bargaining. Patients would argue towards the development of monogamous, heterosexual or celibate lifestyles to reduce the likelihood of future HIV infections.

Ten patients had previous psychiatric histories requiring interventions, mostly anxiety or depressive disorders; one had a history of obsessive-compulsive disturbance and four patients had a history of eating disorder (anorexia nervosa or bulimia). Two subjects had intercurrent physical disease which exacerbated their fears of HIV. Two others had non-specific viral illness not related to HIV infection, confirmed on repeated antibody screening. A conspicuous feature in 13 of the 19 patients was that of social isolation or high dependence in existing stable relationships. The background features of patients in this survey are presented in Table 3.

Management

Management of the worried well follows a cognitive-behavioural strategy consistent with construing this group as exhibiting an obsessive-compulsive pattern of behaviours. Intervention is described in a further group of seven patients. Although different from the patient group reviewed above, the presenting and background features are consistent.

Table 3. Background features of the worried well ($n = 19$).

Feature	Patient numbers			
	Het M ($n = 6$)	Het F ($n = 2$)	Bi ($n = 3$)	Hom ($n = 8$)
Sexual adjustment difficulties	3	1	3	8
Covert sexual activity	6	2	2	7
Sex-related guilt	6	2	2	5
Bargaining towards 'low-risk' future	6	2	3	8
Low level of HIV-related sex activity risk	6	2	2	8
Previous STD history	0	0	2	3
Previous psychiatric/psychological history	4	2	0	4
Social isolation/high relationship dependence	4	2	1	6
Genuine intercurrent non-STD disease	1	1	1	1

The worried well can be understood in terms of a hypochondriacal syndrome, but they are better understood in terms of a model of health preoccupation proposed and illustrated by Salkovskis and Warwick [24], and described further by Warwick and Marks [25]. Hypochondriasis is reconsidered as 'health preoccupation', comprising a continuum of mild to morbid preoccupation. Morbid preoccupations are seen as a 'rational' corollary of obsessional thought. That is, they are repetitive, exclusionary of other thoughts, but relatively consistent with the personality and experience of a given patient, as opposed to obsessional thoughts which, typically, are senseless and inconsistent with an individual's experience and personality.

A hypochondriacal model has two key features: (i) the

preoccupation of bodily health out of proportion to existing justification; and (ii) the pursuit of reassurance. A cognitive-behavioural re-interpretation points preoccupation with health as the cognitive component while seeking reassurance from physicians, and body checking (for raised lymph nodes, Kaposi's sarcoma [KS] lesions and so forth) is the behavioural component.

Continuing the obsessive-compulsive metaphor, there is a subtle element of avoidance in health preoccupation, related to continually seeking reassurance, which exacerbates the patient's condition in the same manner that elaborate compulsive behaviours reduce anxiety in the short term but contribute to higher levels of anxiety in the long run. This feature of repeated consultations, investigations and reassurances that are ultimately counter-productive, distinguishes these behaviours from other illness behaviours. Furthermore, it is because the underlying psychological problems have gone unrecognised, and these patients may end up being labelled as 'attention seeking', 'neurotic' or even 'hypochondriacal' (none of which labels has any predictive utility), that the patient's behaviours become more extreme and the underlying psychological process is then recognised. The behaviours assume the proportions of an obsessive-compulsive disorder. It is proposed that if they are not picked up by health care workers, or if they do not present for investigation, suicidal ideation and behaviour, takes over because the patient is left unable to cope, and seeks to avoid the catastrophic inevitability of AIDS.

Salkovskis and Warwick [24] identify three reasons for seeking consultation in this group: (a) the handicap, inconvenience and physical discomfort arising directly from the symptoms day to day; (b) anxiety and intrusive thoughts about the possible cause of the problem, especially catastrophic interpretations of the nature of the symptoms; (c) discomfort at the possible negative consequences of not taking further action, such as seeking consultation. The last two of these constitute the avoidance response comparable to that seen in obsessive-compulsive neurosis, as the patient is *avoiding* the catastrophic outcome (AIDS) by repeatedly seeking consultation and reassurance. This avoidance response is triggered in turn by intrusive thoughts about HIV, which in turn are triggered by the media, by hearing of friends who have AIDS and so on.

Accepting this formulation suggests an intervention based on cue exposure and response prevention. The presenting problem of physical symptomatology is re-interpreted as being psychological in nature, and prevention of reassurance-seeking in the face of cues to do so constitutes a major part of the therapeutic contract.

Procedure

In terms of this formulation, there is a core psychological process underlying the patients' conviction that they have come into contact with the HIV despite test evidence to the contrary. Each patient had ruminative thoughts concerning their being infected with the HIV, accompanied by compulsive behaviours such as body checking and seeking reassurance. The rationale behind the

intervention is predicated on this understanding, and is outlined below. Individual differences in treatment approach are discussed in the interpretation of the results.

Patients

Case 1: James was a 32-year-old accountant running his own practice. He described his sexual orientation as being exclusively heterosexual and he did not have a regular female partner at the time of his initial assessment. For the past five months he had experienced pains in his joints, aches under his arms, swollen glands, felt hot and flushed intermittently, complained of a sore penis and was extremely worried about his health. During this time he had been tested for anti-HIV and given full medical examination three times. No abnormality or HIV was detected. Five months previously he had been treated for non-specific urethritis (NSU), having had sexual intercourse with a casual girlfriend. He reasoned that if this partner did not know she had NSU, it was equally likely that she did not know she was carrying HIV. The NSU was successfully treated. There was no previous physical or psychiatric history, or family psychiatric history. In view of his anxieties he was referred to psychologists for assessment. He expressed the conviction that he had HIV infection, could not stop thinking about this, and stated he spent 'significant' amounts of time checking his armpits, groin, neck and penis for signs of infection. He reported being slightly depressed, and very anxious to the extent that it was interfering with his ability to work.

Case 2: David was a 35-year-old commercial technical translator who described being exclusively heterosexual. He had been cohabiting with his regular female partner for three years. His work involved travelling, and he had a casual sexual encounter with a female in Spain 15 months prior to his psychological assessment at this clinic. He was preoccupied with having acquired HIV from this encounter, and that he had infected his regular partner since. He had previously attended this clinic over four years for treatment of NSU, gonorrhoea and penile warts. There was no other significant history of physical illness, and no previous psychiatric history. He had three negative HIV antibody tests since his return from Spain, and nothing abnormal had been detected on clinical examination. Despite these reassurances, he was convinced that he was HIV infected, and spent regularly 30 minutes per day checking his body for symptoms. He reported his mood being 'down', and appeared extremely anxious. His concentration was impaired and he complained of lethargy. He complained further of constipation, dizziness, chest pains, pains in his arms and legs, and headaches. He stated he could not concentrate at work, and complained of a 'loss of sex drive'. He and his regular partner had postponed attempts at pregnancy as a result of his fears for her being infected with HIV.

Case 3: Simon was a 27-year-old personnel manager who described being exclusively homosexual. He had casual sexual encounters about every 10 weeks, and for the past two years had never engaged in high HIV-risk sexual

behaviour. He presented at the clinic for an HIV antibody test and, in view of his low risk behaviour and high levels of anxiety, was referred to psychologists for assessment while waiting for a minimum of three months since his most recent sexual encounter before testing. For the previous six months he had been convinced that it was 'only a matter of time' before he was diagnosed as having AIDS and, as evidence to support this belief, he complained of a 'corrugated' tongue, ulcers, sore throat, enlarged lymph nodes, apathy and fatigue. In the three years previously he had been contact traced for syphilis but was negative on testing. He had also successfully been treated for crabs. In 1985 he had a negative HIV antibody test. Physical examination revealed no abnormalities and there was no other significant medical or psychiatric history.

Case 4: Janet was a 39-year-old woman with a 12-year-old daughter. Her husband had died by suicide 11 years previously. Since then she had one regular male sexual partner for nine years until 1982. She then had one casual sexual encounter prior to further intermittent sexual episodes with the previous regular partner (twice in the year before assessment). At presentation, she expressed considerable concern at having acquired HIV from the casual partner, which she had then passed on to her regular partner. She complained of swollen neck glands, night sweats, oral candidiasis and of feeling 'over tired'.

The history revealed that she felt responsible for not having found her husband in time before he died from a drug overdose. She was having difficulties in running her business alone, with her daughter and her parents making many demands on her time. Her mother was an alcoholic and could 'not be left alone'. Her one HIV antibody test had been negative, and clinical examination was normal.

Case 5: Edwin was a 35-year-old owner/manager of a thriving 'gay' bookshop in the north of England. He reported being predominantly homosexual, and exclusively so in the last five years. He had attended two London STD clinics prior to attending this one, requesting the HIV antibody test, and was referred to psychologists in view of his low-risk behaviour and history of negative HIV test results. He complained of a sore throat, enlarged lymph nodes in his groin and armpits, swollen glands in his neck, pains in his joints, intermittent diarrhoea, night sweats, intermittent cold sores, dizzy spells, mild and limited but irritating rashes, feeling run down, slightly depressed, very anxious and unable to concentrate.

He had consulted his GP six times in 1987, presenting with these symptoms and requesting the antibody test. He was seen by two consultants, a registrar and numerous SHOs in specialist NHS facilities for people who are HIV antibody positive. At the time of this assessment, he had had four negative HIV antibody and two negative HIV antigen tests. He had recently separated from a former regular partner who was HIV antibody positive. They had been celibate for the previous year. The patient had been treated for gonorrhoea in 1982, and there was evidence of a flu type illness during the Christmas of

1986. There was no past medical history, and no past psychiatric history, although he did describe himself as always having been very aware of his body.

Difficulties in coping at home and at work were directly related to the amount of time he spent checking his body for symptoms, and ruminating about the virus. These thoughts and behaviours were often triggered by customers, friends, and associates who would regularly discuss others with AIDS, or who were anti-HIV positive.

His rationale for denying the evidence of negative blood test results was that 'the medical establishment does not know all about the virus', that he had received so many mixed messages about the interpretation of blood test results, and that his immune system was so impaired that it would not be able to produce antibodies to the virus anyway. These beliefs were bolstered by having seen an otherwise fit and healthy friend develop *Pneumocystis carinii* pneumonia, without having prior knowledge of HIV infection.

Case 6: Steve was a 47-year-old sales director, married for 21 years, and who reported being exclusively heterosexual. He presented for HIV antibody testing after having been to the United States 13 months previously. While there he visited a 'heterosexual' cinema where a prostitute engaged him in fellatio, which ended abruptly without his ejaculating. He read about AIDS in a newspaper four weeks after his return to England.

For the 10 months prior to presentation, he reported having diarrhoea, chest pains, aching arms, headaches, dizzy spells, feeling lethargic, unable to concentrate, and occasionally having 'panic attacks'. He elected to have the HIV antibody test. The result was negative, and there was nothing abnormal detected in the physical examination, apart from a slight hypertension.

His wife did not know of his worries and he was very concerned about having passed on the virus to her. At the time of his second presentation for blood testing he was referred for assessment by psychologists. At this time he was finding it increasingly difficult to work, and he described being 'completely obsessed' by the thought that he had infected himself, and that he had passed on the virus to his wife.

Case 7: Robert was a 38-year-old in the retail trade. He had been married for over 15 years. He described himself as heterosexual. He had headaches, regular intermittent respiratory infections, complained of being lethargic, depressed, and unable to concentrate on his work. In January 1987 he had been on a skiing holiday when he developed a severe cough and gastroenteritis. The cough had not resolved by March and, moreover, he had developed a sore throat.

After having consulted his GP for treatment of these symptoms, which did not remit, he realised that he 'must have AIDS'. In April 1987 he had a negative HIV antibody test. Epstein-Barr virus (EBV) was isolated however, and he was diagnosed as having glandular fever. In July, he had a fever of 102° and numerous other symptoms. His consultant determined that these symptoms could not have been due to glandular fever, thus

affirming his beliefs in HIV as the aetiological agent. He had not had any extramarital sexual contact, he was not an injecting drug user, and he did not believe that his spouse would have been in a position of having acquired the virus. Concomitant with this viraemic expression, Robert was changing jobs and planning a second child. Following the first negative HIV blood result, they conceived their second child. There was no previous history of STD infection, but there was a history of coronary problems, and the patient had been treated two years ago for a prolapsed mitral valve. His diagnosis as EBV positive led to admission and investigation of his coronary status.

His main problems concerned ruminations about carrying HIV, and passing it on to his spouse and offspring. Furthermore, he was confused about the reportedly mixed messages he had received regarding Epstein-Barr virus and its relation to his symptomatology. He was extremely anxious about work and, at the time of his psychological assessment, about the impending birth of his second child.

Method

During the baseline period (at least one week's duration) cognitive, behavioural, and affective measures were taken. These comprised the Beck Depression Inventory, the Spielberger State-Trait Anxiety Inventory, and two measures derived from Salkovskis and Warwick [24], covering the cognitive, and behavioural correlates of the obsessive-compulsive type syndrome. These measures consisted of patients' rating their concurrence with the following statements:-

- A: 'I believe that I am infected with HIV';
 B: 'I need reassuring that I am not carrying the HIV'.

Ratings were made at the end of the assessment session, and at the beginning of subsequent sessions. The measures of mood were taken at the beginning of the assessment session, and at the end of the last treatment session. The ratings on the self-statements were made on a numerical percentage scale, where 100 per cent corresponded with complete agreement, and 0 per cent with complete disagreement with the statement. Treatment was provided over a mean of 10 sessions, with a review at the tenth session and subsequent follow-up.

The primary aims of the intervention were: (i) to interpret this symptomatology in terms of anxiety rather than manifestations of HIV, and to explain the rationale

lying behind this strategy; and (ii) to institute Stress Inoculation Training [26] enabling patients to cope with the situations which triggered their ruminations and compulsive behaviours.

Reinterpretation of symptoms involved ascertaining past, present and future stressors at work in the patient's life, and encouraging a correct attribution for the anxieties to which these stressors gave rise. There was usually some resistance to accepting these reinterpretations as somaticised anxiety, which often required considerable discussion to enable the patient to think in psychological terms. At the same time it was important to bring in any other history of health preoccupation, and concurrent infections, and attribute symptomatology accordingly.

Self-monitoring of body checking was also important, and phasing this behaviour out formed an important part of the therapeutic contract. Behavioural formulations of cue exposure and response prevention were provided, and a feeling of self-efficacy following perception of self-restraint was encouraged. Reinterpretation was further emphasised by explaining that body checking, particularly self-prodding of lymph sites, could also exacerbate or bring on token symptomatology. Pursuing this rationale led to explanations of hyperattentiveness as a mechanism for generating evidence of infection through oversensitivity to the normal daily fluctuations in bodily aches and pains.

Results of treatment

Patients' mood was assessed pre- and post-intervention using standardised questionnaires, and ratings of agreement with the two statements outlined in the procedure were taken throughout treatment. Table 4 shows the means, standard deviations, and medians of these scores pre- and post-intervention, at the last three month follow-up.

Non-parametric analysis using Wilcoxon's statistic demonstrates significant changes on the BDI ($p < 0.01$), State anxiety ($p < 0.02$), statement A ($p < 0.01$) and statement B ($p < 0.02$).

Follow-up was conducted monthly, up to three months post intervention. Only one patient failed to follow-up. In terms of obsessive-compulsive state, changes had been consolidated: conviction in the belief that they were infected by the HIV was uniformly low, and less than or equal to their self-ratings at the end of the contracted treatment time. The same applied to the need for reassur-

Table 4. Summary descriptive statistics showing means, standard deviations, and medians of ratings of mood, and self-statement ratings.

	Beck depression inventory		STAI				Statements			
			State		Trait		A		B	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Mean	16.4	10.1	50.7	45.6	46.9	43.0	94.3	17.7	95.7	35.0
Standard deviation	3.6	2.4	9.0	6.9	4.6	4.3	7.3	23.9	7.9	40.3
Median	16.0	10.0	51.0	36.0	47.0	41.0	95.0	4.0	100.0	10.2

ance that they were not infected by HIV, although these ratings were slightly higher than the corresponding belief that they were infected. Body checking had virtually ceased as a result of the method of phased reduction.

Discussion

Interpretation of the treatment results requires a cautious translation of statistical to clinical significance. The cases reported were not controlled single experimental designs, and further work is being undertaken to determine what process factors may be responsible for the observed improvement across sessions. In addition, the Wilcoxon is essentially a qualitative test of change and does not reflect the magnitude of such changes. However, the initial inspection of the data showed that, on all the results which were statistically significant, all the patients' scores improved on all measures. The means and standard deviations indicate noticeable differences in terms of depressive rating and self-statements.

Self-reported change was consonant with the statistical indices. Patients commonly reported feeling more confident, less anxious, and less depressed, and were able to acknowledge that HIV was not the real problem. For example, for one patient the main issue of significance concerned chronic guilt associated with a covert sexual contact. Another patient had not resolved her feelings of guilt surrounding the death of her husband, and responded immediately this issue was raised.

The presentation of patients in both sections of this paper closely resembles that of patients revealed in the context of prior epidemics, notably sexually transmitted diseases such as syphilis. 'Syphilophobia' was first recorded in the medical literature in 1586, over 400 years ago [8]. Since the emergence of the AIDS pandemic and the increasing media coverage of the syndrome and its causative agent, HIV, increasing numbers of psychologically vulnerable people appear to have adopted the pandemic as a vehicle for the expression of their sexual or psychological/psychiatric vulnerability [16, 27].

Obsessive states are among the most difficult to treat in contemporary psychology [26]. This population also emphasises the difficulties involved in trying to prove the *absence* of disease. However, management of the worried well in terms of the formulation described does enable a number of therapeutic options. In particular, collaborative reinterpretation of symptoms and aetiological issues is especially useful in generating and maintaining patient compliance and perception of self-efficacy. Other reports [eg 28] have described how behavioural psychotherapy may assist in addressing a spectrum of core and peripheral issues in this particular population, where a reliance on psychopharmacological intervention may leave issues of background vulnerability and relationship problems unresolved. However, the worried well also emphasise the benefits of a team-centred approach, for instance where late identification of suicidal intent may necessitate psychiatric admission [14]. The applicability of the techniques described to other media-motivated hypochondriacal states has yet to be tested, but may hold considerable promise on the basis of this early series.

To conclude, these brief series reveal consistent presenting and background phenomena in a population of worried well persons presenting in the context of the HIV pandemic. These consistencies lead to a number of clinical options for cognitive/behavioural psychotherapy in a patient group manifesting considerable management difficulties. They also enable early clinical identification of chronic psychosocial vulnerability and likely chronic management difficulty in those attending for HIV antibody testing, especially following heightened media coverage of HIV/AIDS. Further, with the development of a promising cognitive/behavioural treatment package based in the Health Preoccupation model, the scope for effective clinical interventions complementing traditional interventions for depression and obsessive disorders is becoming greater. Clearly, with the identification of this important clinical group becoming more reliable, the need for sustained evaluation of such methodologies is paramount.

This article is based, in part, on a paper delivered at a Conference on Neuropsychiatric Disease and AIDS held at the Royal College of Physicians of London in October 1987.

References

1. Friend, J. (1727) *The history of physick* (2nd edn, Part 2). London: Walthoe.
2. Pedder, J. R. and Goldberg, D. (1970). A survey by questionnaire of psychiatric disturbance in patients attending a venereal diseases clinic. *British Journal of Venereal Diseases*, **46**, 58.
3. Mayou, R. (1975). Psychological morbidity in a clinic for sexually transmitted disease. *British Journal of Venereal Diseases*, **51**, 57.
4. Catalan, J., Bradley, M., Gallwey, J. and Hawton, K. (1981) Sexual dysfunction and psychiatric morbidity in patients attending a clinic for sexually transmitted disease. *British Journal of Psychiatry*, **138**, 292.
5. FitzPatrick, R., Frost, D. and Ikkos, G. (1986) Survey of psychological disturbance in patients attending a sexually transmitted disease clinic. *Genito-Urinary Medicine*, **62**, 111.
6. Ikkos, G., FitzPatrick, R., Frost, D. and Nazeer, S. (1987) Psychological disturbance and illness behaviour in a clinic for sexually transmitted disease. *British Journal of Medical Psychology*, **60**, 121.
7. Ikkos, G. (1987) Psychiatric aspects of sexually transmitted diseases: a review. Unpublished manuscript.
8. MacAlpine, I. (1957) Syphilophobia: a psychiatric study. *British Journal of Venereal Diseases*, **33**, 92.
9. Frost, D. P. (1985) Recognition of hypochondriasis in a clinic for sexually transmitted disease. *Genito-Urinary Medicine*, **61**, 133.
10. Kite, E. and Grimble, A. (1963) Psychiatric aspects of venereal diseases. *British Journal of Venereal Diseases*, **39**, 173.
11. Bhanji, S. and Mahoney, J. D. H. (1978) The value of psychiatric service within the venereal diseases clinic. *British Journal of Venereal Diseases*, **54**, 266.
12. Oates, J. K. and Gomez, J. (1984) Venereophobia. *British Journal of Hospital Medicine*, **32**, 435.
13. Miller, D., Green, J., Farmer, R. and Carroll, G. (1985) A 'pseudo-AIDS' syndrome following from a fear of AIDS. *British Journal of Psychiatry*, **146**, 550.
14. Miller, D. (1986) The worried well. In *The Management of AIDS Patients* (Eds D. Miller *et al.*) pp 169-174. Basingstoke: Macmillan Press.
15. Forstein, M. (1984) The worried well. In *Psychiatric implications of acquired immune deficiency syndrome* (Eds S. Nichols and D. Ostrow) Washington: American Psychiatric Press.
16. Miller, D. (1987) Predictors of chronic psychosocial disturbance arising from the threat of HIV infection: lessons from heterosexual, bisexual and homosexual worried well patients. Poster presented at

- III International Conference on AIDS, Washington, 1-6 June 1987.
17. Dilley, J. W., Ochitill, H. N., Perl, M. *et al.* (1985) Findings in psychiatric consultations with patients with acquired immune deficiency syndrome. *American Journal of Psychiatry*, **142**, 82.
 18. Christ, G. H. and Weiner, L. S. (1985) Psychosocial issues in AIDS. In *AIDS: etiology, diagnosis, treatment and prevention*, (Eds V. T. DeVita *et al.*) pp 275-298. Philadelphia: J. B. Lippincott.
 19. Temoshok, L., Mandel, J. S., Moulton, J. M. *et al.* (1986). A longitudinal psychosocial study of AIDS and ARC in San Francisco: preliminary results. Paper presented at Annual Meeting of the American Psychiatric Association, Washington, DC, 13 May 1986.
 20. Miller, D., Green, J. and McCreaner, A. (1986) Organising a counselling service for problems related to the acquired immune deficiency syndrome (AIDS). *Genito-Urinary Medicine*, **62**, 116.
 21. Kernoff, P. and Miller, R. (1986) AIDS-related problems in the management of hemophilia. In *The management of AIDS patients* (Eds D. Miller *et al.*) pp 81-92. London: Macmillan Press.
 22. Des Jarlais, D. C. and Friedman, S. R. (1987) HIV infection among intravenous drug users: epidemiology and risk reduction. *AIDS*, **1**(2), 67.
 23. Miller, D. (In press). The worried well: phenomenology, predictors of psychological vulnerability and suggestions for management: In *Psychological perspectives on AIDS: etiology, prevention and treatment* (Eds L. Temoshok and A. Baum). New York: Lawrence Erlbaum.
 24. Salkovskis, P. M. and Warwick, H. M. C. (1986) Morbid preoccupations, health anxiety and reassurance: a cognitive-behavioural approach to hypochondriasis. *Behaviour Research and Therapy*, **24**, 597.
 25. Warwick, H. M. C. and Marks, I. M. (1988) Behavioural treatment of illness phobia and hypochondriasis. *British Journal of Psychiatry*, **152**, 239.
 26. Carnwath, T. and Miller, D. (1986) *Behavioural psychotherapy and primary care: a practice manual*. London: Academic Press.
 27. Nicholas, H., Leonard, P., Glover, L., Parr, D. and Miller, D. (1987). The effect of a government AIDS media campaign on a general population: antibody test requests and reasons. Paper presented at III International Conference on AIDS, Washington, DC, 1-5 June, 1987.
 28. Miller, D. (In press) Diagnosis and treatment of acute psychological problems related to AIDS. In *Behavioural aspects of AIDS and other sexually transmitted diseases* (Ed D. Ostrow). New York: Plenum.

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The next examination will begin on Thursday, 20th October 1988. Application forms, together with the necessary documentation, must reach the College by Friday, 9th September 1988.

Candidates must either have held a post approved for professional training in a department specialising in the care of the elderly, or have had experience over a period of 2 years since Full Registration or equivalent in which the care of the elderly formed a significant part.

Further details and an application form may be obtained from:-

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Royal Colleges of Physicians MRCP (UK)

Part 1

The next MRCP (UK) Part 1 Examination will take place on Thursday 13th October 1988.

Application forms accompanied by the necessary certificates and fee of £120.00 must reach the College of entry by Friday 9th September 1988.

Prospective candidates should have been qualified for 18 months and may enter through any one of the Colleges listed below.

Part 2

The next MRCP (UK) Part 2 Examination will begin on Tuesday 20th September 1988.

Application forms accompanied by the necessary documentation and fees must reach the College of entry by Friday 12th August 1988:

Prospective candidates should have been qualified for 2½ years and must comply with the regulations concerning training in acute medicine.

The Examination fees: *Written Section* £115.00 *Oral and Clinical Section* £125.00. The London College will require separate cheques. The Scottish Colleges will require a single cheque for £240.00.

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