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COGNITIVE-BEHAVIOUR THERAPY FOR INPATIENTS WITH PSYCHOSIS AND ANGER PROBLEMS WITHIN A LOW SECURE ENVIRONMENT

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Abstract. There is a growing body of evidence that cognitive-behaviour therapy is an effective treatment in chronic psychosis for reducing the severity and distress associated with hallucinations and delusions. However, no work has been published that has applied cognitive-behaviour therapy (CBT) with inpatients within secure environments who may have co-existing problems with psychosis and aggression. This paper describes how CBT for psychosis has been integrated with a CBT approach for treating anger for this group of patients. Three case studies of inpatients on a low secure, high dependency facility are described with whom this approach was used. The paper highlights the unique problems of interventions with these types of clients, and describes how CBT can be applied within these environments.

Keywords: Psychosis, anger, aggression, inpatient.

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Introduction

A significant number of people who have a diagnosis of schizophrenia are difficult to treat due to persistent medication-resistant symptoms and problems of aggression and violence. As a result, there has been considerable interest in the role of specific clinical factors in determining violent behaviour (Junjinger, 1996), especially in view of findings of a higher prevalence of violent behaviour associated with patients suffering from severe mental illnesses (Monahan, 1992). Epidemiological findings by Swanson, Holzer, Ganju and Jono (1990) indicated that the rate of violence perpetrated in a prior year interval was more than five times greater among people with major mental illness, especially schizophrenia, than for people with no mental disorder - although the base rates are generally low, as 12.7% of those with schizophrenia were violent, compared to 2.7% of those with no mental disorder (see also Wessely, Castle, Douglas, & Taylor, 1994). However, recent research by the MacArthur Project showing a lower rate of violence for discharged patients with schizophrenia versus those without schizophrenia (Monahan et al., 2000) suggests that the relationship between schizophrenia is unclear. Compared to persons with other major mental disorders, persons with a diagnosis of schizophrenia had significantly lower rates of violence at 20 weeks and at 1 year post-discharge than did those with diagnoses of major depression or bi-polar disorder (Monahan et al., 2001).

Mullen (2000) has suggested that variance in the relative prevalence rates across studies may be a result of the differences in the populations being studied. Research on psychiatric inpatients has also shown fairly high rates of violence within the institution. In a study of three British psychiatric hospitals, Fottrell (1980) found that 10% of psychiatric inpatients in two of the hospitals had engaged in violent acts, with schizophrenia probably being the perpetrator's most common diagnosis. Much higher rates have been found in other investigations concerning patients in secure or forensic settings. For example, a survey of more than 4500 patients, involving all California State Hospitals, found that 13.9% of psychiatric inpatients had been violent in a 30-day period (Novaco, 1994). Research by Larkin, Murtagh and Jones (1988) carried out in a British high security mental hospital found that 36.6% of their inpatients had engaged in violence over a 6-month study period.

When substance abuse is linked with schizophrenia the rates of violence are consistently higher than non-substance using patients (Monahan et al., 2001; Wallace et al., 1998). One reason for this might be that substance use interferes with patients engaging in treatment, resulting in more persistent psychotic symptoms (Mullen, 2000). This would seem to be consistent with findings that higher rates of violence have been found to be associated with the presence of delusional symptoms (Buchanan, 1997; Hafner & Boker, 1972; Taylor, 1985; Link, Andrews, & Cullen, 1992). More specifically, Hafner and Boker (1972) have emphasized the importance of the presence of a delusionally driven desire for revenge, or perceived threat in crimes of serious violence, and De Pauw and Szulecka (1988) found that delusions of misidentification were implicated in crimes of violence against the person. Similarly, Link and Stueve (1994) found that particular delusional symptoms (threat/control override symptoms; TCOS) were associated with past violent behaviours. TCOS are those where the content indicates a threat towards the individual or suggests that outside forces are in control of the individual's mind. Swanson, Borum, Swartz and Monahan (1996) also noted that, in a large sample, patients with TCOS were twice as likely to engage in assaultive behaviour when compared with other psychotic symptoms, e.g. hallucinations, and were approximately five times as likely when compared to people without mental disorder. In addition to content,

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factors such as the degree of systematization and conviction in the delusional system have also been suggested to contribute to an increased risk of violence (Wessely et al., 1993; Junginger, 1996).

Quite surprisingly, however, delusions and threat control override symptoms were associated with a reduced risk of violence in the large MacArthur study that was conducted in three US metropolitan areas (Monahan et al., 2001). These authors extensively examined these relationships and conjectured that methodological differences might be at play. When they alternatively used the retrospective analyses and subjects' self-report of symptoms employed in previous investigations (as opposed to the more rigorous assessment and classification of symptoms in the MacArthur project), they were able to replicate the findings of previous studies showing positive effects for delusions and specific psychotic symptoms. However, Monahan et al. found that when measures of anger and impulsiveness were controlled, any positive effect for psychotic symptoms was eliminated.

These results point to the importance of anger in association with psychotic symptoms. In a study of 1033 psychiatric patients, Craig (1982) noted that the presence of anger was the main correlate with the occurrence of assaults prior to admission (11%), particularly for those patients with a diagnosis of schizophrenia. Similarly, Kay, Wolkenfeld and Murrill (1988) found that anger was the strongest predictor of aggression in 208 psychiatric inpatients. In a further study, it was found that psychiatric patients with high clinician anger ratings were seven times more likely to be assaultive than those rated as low anger (Novaco, 1994). Additionally, Novaco and Renwick (1998), in a prospective study of male patients in a UK special hospital, found that level of anger was significantly related to assaultive incidents and hospital discharge status ascertained during a period of 12 to 30 months after anger measures were obtained.

However, the link between anger and violence is not a simple one, as while anger can be an activator of aggression, it is neither necessary, nor sufficient for violence to occur. When the determinants of anger are sought, there is a tendency to identify as "causes" immediate physical and temporal factors surrounding anger incidents. Novaco (1993) referred to this as a "proximity bias" and instead advised that the understanding of anger activation be contextualized. This would seem highly relevant for people with psychosis, whose experience of anger provoking events may in part be a product of delusional thinking and perceptual distortions, and whose day to day life often transpires within adverse environments.

Psychotherapeutic intervention

There has been little development of psychotherapeutic treatments that can reduce the severity of both the persistent psychotic symptoms and concomitant problems of anger and aggression. However, the effectiveness of interventions for anger and psychosis has been researched individually. For example, in recent controlled trials, cognitive-behavioural treatments, in conjunction with neuroleptic medication, have been shown to be effective at reducing the severity and frequency of psychotic symptoms (Tarrier et al., 1998; Kuipers et al., 1997; Sensky et al., 2000). Cognitive-behavioural methods have also been shown to be successful in treating anger related problems in patients with severe mental health problems (Chemtob, Novaco, Hamada, & Gross, 1997; Renwick, Black, Ramm, & Novaco, 1997). Further research is required to investigate the effectiveness of a combined cognitive behavioural treatment for psychotic patients who also have a history of anger and violence.

This small case series evaluated the effectiveness of an integrated cognitive-behaviour therapy for the treatment of psychotic symptoms and anger in patients with a diagnosis of

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schizophrenia who were living in a high dependency unit (HDU) in a North West England health trust (Pennine Care NHS Trust). The therapists carrying out the intervention (the first two authors) both provided a small psychological service to the unit in that they offered advice on psychological issues and picked up a small number of cases for psychological intervention and therapy. As a result, they were not involved in the day-to-day running or management of the unit, although they made contributions to treatment plans and reviews of patients on the ward.

The HDU is a locked psychiatric ward within a general hospital in which a needs based multidisciplinary treatment is provided. Due to specific referral criteria, patients residing on such units often have a range of complex needs when compared to those living within the community. For example, although there is some variation, patients are likely to have a history of prior challenges to services in terms of anger and violence, potentially occurring within the context of a history of chronic substance use. Patients are also more likely to be "resistant" to traditional treatment approaches, and consequently may experience a greater range of residual symptoms. The presence of specific symptoms or beliefs may have interfered with traditional assessments and treatments. Such symptoms may include the presence of specific types of command hallucinations, and/or delusional beliefs that interfere with engagement in services (e.g. possible voice hearing, or delusionally driven catastrophic implications of discussing psychotic experiences with staff). Additionally, it is not uncommon for patients within such units to be socially unsupported due to a history of gradual deterioration in interpersonal relationships.

The difficulties in maintaining a cohesive multi-disciplinary approach may be seen as a direct product of such complex histories and presenting problems. These difficulties may be problems in the process of diagnoses and the identification of the most appropriate treatment approaches. Furthermore, as HDUs are locked environments, all work occurs within the context of the need to balance custodial and therapeutic agendas. With these patient-related and systems-related complexities in mind, the present case series aims to illustrate the possible adaptations to the process of CBT for psychosis and anger within such settings.

Case studies

Common assessment process

Comprehensive baseline, end of treatment, and follow-up assessments were carried out by an assistant psychologist. Psychotic and non-psychotic symptoms were assessed using the Positive and Negative Syndrome Schedule (PANSS; Kay, Opler, & Lindenmayer, 1989) and the Psychotic Symptom Rating Scales (PSYRATS; Haddock, McCarron, Tarrier, & Faragher, 1999). Self-report of anger was assessed using the Novaco Anger Scale (NAS; Novaco, 2003). The NAS is a self-report instrument containing *Cognitive*, *Arousal*, and *Behavioral* subscales, which comprise a *Total* score for anger disposition. The subscales relate to the three dispositional domains that are central to the view of anger described by Novaco (1994), as linked to an environmental context. The NAS was developed and validated for use with mentally disordered as well as normal populations. Since its inception, it has received independent validation (Grisso, Davis, Vesselinov, Appelbaum, & Monahan, 2000; Jones, Thomas-Peter, & Trout, 1999; Mills, Kroner, & Forth, 1998; Monahan et al., 2001). Assessments of anger were also recorded by ward staff using Part B of the Ward Anger Rating

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Scale (WARS; Novaco, 1994), complemented by an incident by incident record of any violent or aggressive acts towards staff, patients or objects. The WARS anger measure consists of the sum of the seven anger attribute ratings, which have been found to have an internal consistency of alpha = .88 and have concurrent and predictive validity in association with other staff-rated and self-report measures of anger and aggression and with violent incident data (Novaco & Renwick, 2002).

Intervention

Interview and standardized assessments were used to gain a thorough and comprehensive view of the individual's experiences in terms of the maintenance of the key problems (including psychotic symptoms) and how they related to expression of anger. Although a thorough assessment using psychometric measures was carried out by the project research assistant, the CBT assessment involved an "individually tailored" evaluation of the specific difficulties the person was experiencing. The aim was to gain a history of the client, a history of their illness and an understanding of the range of current problems. Personal history usually included: early experiences, significant experiences throughout life to date, the client's present situation, a history of the patient's use of coping strategies, and how any aggression or violence fitted into this. Therapists usually used the anger assessments in the therapy session to stimulate discussion of anger and aggression. This could be useful if there was ambivalence or denial of issues relating to these areas.

It was not uncommon for problems to be identified in a whole range of areas, including: psychosis, negative symptoms, depression, anxiety, financial problems, social and familial problems, anger, disagreements with treatment and diagnosis. The therapist and patient negotiated priorities for formulation and assessment to one or two key areas. However, whatever the agreed priorities were, the therapist ensured that the aggression and psychosis were incorporated into the assessment and formulation in some way. Even when anger or aggression were not acknowledged to be a problem, they were still discussed in the context of the patient's responses to their situation where possible. The clinical formulation of psychosis and aggression described below (see Figure 1) was used as a focus for assessment and intervention and the aim was that the key problems were described in terms of that clinical formulation.

Once a reasonably collaborative agreement about priorities for intervention was agreed, interventions were focused around the problems described above. For psychotic symptoms, interventions were based on a CBT approach for chronic psychotic symptoms (see Haddock & Siddle, 2002) that included strategies such as: symptom monitoring, belief modification and reality testing, distraction, focusing and exposure work, medication compliance and schema work. Strategies for working with anger (see Novaco, 1999) included: psychoeducation, self-monitoring, cognitive restructuring, arousal reduction strategies, examination of appraisals and meaning of anger, role-play and imaginal exposure, and a consolidation of coping strategies.

Relapse prevention or keeping well strategies were incorporated into each patient's treatment package at some point. The complexity of this was dependent on the progress made in therapy and the degree to which the patient engaged in therapy. Even where a detailed keeping well package could not be constructed, a summary of therapy to consolidate progress was made to facilitate generalization outside the sessions. Whatever the stage of progress for the patient,

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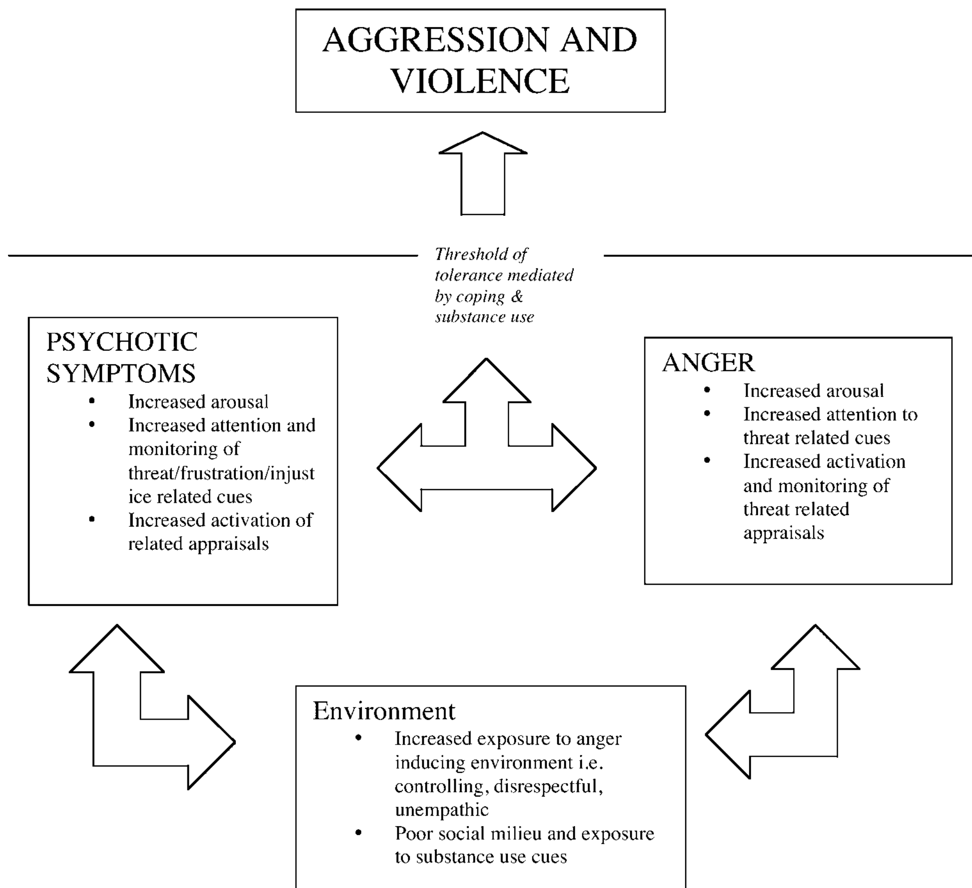

Figure 1.

management of aggression, anger/violence was incorporated in some way. This was usually done towards the end of therapy and was used as a medium for feeding back progress made during therapy to other care staff involved with the patient's care.

Case studies

George

History. George, aged 25, was admitted to the HDU following an 8-year history of mental health problems. He received a diagnosis of schizophrenia on his first admission to hospital, aged 19. He initially presented with delusions of grandiose identity, beliefs that people could read his thoughts, influence his actions, and inflict physical pain upon him. He also believed that he was responsible for unpleasant things happening in the world (e.g. that shaving could produce disasters such as earthquakes in which hundreds would die). Intrusive and distressing voices of people encouraging him to hurt himself or other people were also experienced. George had little contact with his family who had thrown him out of the familial home when he was 18. It was at this time that George began to experiment with drugs. He had numerous

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admissions over the years and medication had little impact on his symptoms. Referral to the HDU occurred following an acute ward admission in which George had repeatedly directed violence at staff. Ward staff had found George difficult to engage in ward activities or in any treatment approaches and referred him for assessment for suitability for psychological treatment with a view that this might help to reduce the severity of his psychotic experiences and help him to further engage in ward treatment.

Current situation. George was hostile to the HDU staff, and was extremely unhappy about his transfer there. He disagreed with his diagnosis and the treatment regime, rejecting the possibility that he had a mental illness. He did not initially agree to CBT but was happy for the first author (GH) to visit him occasionally with a view to an assessment of whether psychological help would be useful. During these initial sessions it was clear that he viewed his "incarceration" on the unit as part of a conspiracy and this view made it difficult for him to trust anyone. He was often unresponsive to staff's attempts to engage him and was openly aggressive to staff and other patients. He expressed a great deal of anger about his perceived mistreatment, particularly towards his psychiatrist who he believed to be dishonest and to be engaging in malpractice by treating him incorrectly.

As a result, strategies were employed by the therapist to increase the likelihood of his engagement (i.e. the identification of self-motivating factors and the adoption of a therapeutic stance that was deemed to be separate from his usual clinical management team). His main concern was getting off the ward; secondary goals included getting his own flat, a job and a girlfriend. Attendance at initial sessions was patchy, but after several weeks George expressed a willingness to look at the factors that were keeping him on the ward, and identify what he might be able to do to leave.

Independent baseline assessment on the PANSS revealed high ratings for frequency and severity of delusions and paranoia, but no current auditory hallucinations. PSYRATS ratings indicated he was very distressed by his beliefs, and had no doubts in the reality of them. Self-report of anger on the NAS was relatively low in connection to the experience of angry feelings and the expressions of anger during initial sessions. However, staff observations were inconsistent with this, with a number of aggressive incidents being recorded. This pattern was supported by the data gathered using the WARS, which indicated significant aggressive though not violent occurrences. It is possible that his low self-report of anger was related to reticence at disclosing his feelings formally as he feared further incarceration. This was confirmed during initial therapy assessment sessions.

Assessment for treatment. Following the elicitation of an initial presenting problem list, a cognitive-behavioural assessment of the presenting problems (i.e. their cognitive, emotional and behavioural correlates) was carried out. As George's problem list revolved around his wishes to leave the HDU, initial sessions focused upon identifying the blocks to his aim. The following problems were identified:

1. Staff being concerned that he would take "street" drugs when alone
2. Disagreement regarding his diagnosis: he felt that he had anxiety problems not schizophrenia
3. Disagreement about the treatment he was receiving (i.e. medication)
4. Resulting anger towards staff and his situation that sometimes caused him to be hostile and aggressive.

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All of the above issues clearly had some reality to them. For example, the treatment team was concerned that he had “no insight” into his illness, and that he would discontinue his medication if he left the unit. George had also stated that he planned to self medicate using heroin and Temazepam, rather than use the prescribed medication. Staff were also concerned that George was unable to control his “anger” and would be a risk in less secure settings.

Disagreement about his diagnosis, the validity of his delusional experiences, and his treatment regime were collaboratively prioritized. Motivational interviewing strategies in relation to his drug use were also utilized where appropriate (Barrowclough et al., 2001; Haddock et al., 2003). George acknowledged that he was angry towards the staff, but specifically connected these feelings to his disagreements with them about his diagnosis and treatment, and suggested that his problems would be resolved if his concerns were addressed. It was agreed to spend some time exploring his experiences, what schizophrenia was, and whether there could be any similarities between the diagnostic criteria and his experiences. Concurrently, George’s therapist attempted to introduce a focus upon anger and aggression in the context of his responses to his present situation (i.e. the influence of anger and aggression upon George’s aim of leaving the ward), with the aim of encouraging George to self-monitor his angry feelings along with other emotional responses.

George’s delusional experiences at this point were similar to when he first presented. He believed that he was a special person and had been targeted by organizations such as the Government and MI5 for many years, advising them on tactics via telepathic phenomenon. However, he also felt that he was being targeted (maliciously) by other organizations, and, at times, by the ones he was “helping”. George also believed that he was being influenced by witchcraft, which he experienced as “getting into his head and body” and causing unpleasant physical sensations. He connected the witchcraft to a group of famous actors whom he believed made constant references to him in their work (i.e. TV programme actors referred to how they were going to “get” him). George believed that one reason he was being targeted was because he was the reincarnation of an infamous terrorist who had died on the day he was born. This man had reportedly been a student of witchcraft, which was an area of interest for George. In addition, his beliefs that shaving caused disasters continued, and caused considerable distress following the reports of tragedies within the media. George was tired of “helping” the organizations and felt that he would like to be rid of all of them. However, he was angry and frustrated that he had no control over his experiences, and this contributed to a constant state of high anxiety and hopelessness regarding his future.

George felt that staff on the HDU only wanted to discuss schizophrenia and medication, and therefore concluded that they were uncaring and uninterested in his concerns. Although he appreciated that many of his experiences were like schizophrenic symptoms, he felt that they were different as they were “real”. This situation resulted in high levels of frustration and intense anger, directed towards staff on the ward, particularly his psychiatrist.

Formulation and intervention. George’s assessment and treatment took place over 30 sessions. Validating the potential reality of the George’s experiences was an extremely important part of the therapy. Considerable time was then spent exploring his beliefs and his evidence for them, and collaboratively studying information about the nature of schizophrenia, its symptoms and treatment. This also involved validating his feelings of anger towards his antagonists and helping him to link his beliefs and anger by identifying the thoughts and beliefs that contributed to his increased arousal and angry interpretations of situations. Some

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education work was also carried out on the nature of arousal and the role of thoughts and beliefs in feelings. He was able to engage in some arousal reduction strategies and was able to identify situations when he would become most aroused. He appeared to greatly identify with the idea that, although he may not be able to influence the things that other people were doing to him, he could at least look after himself. This led to work on arousal reduction, avoidance of "high risk" situations (e.g. conflict with his psychiatrist) interaction with more ward activities, and development of a strategy to get him out of hospital. This in turn had a positive effect on staff attitudes towards George and more positive interactions resulted. Although he did not want to work on a formal provocation/anger hierarchy he adopted a cognitive-behavioural model of his problems (including anger) and was able to understand and carry out many of the suggestions made.

Following these initial sessions, George began to consider that some of his experiences in the past (e.g. voices) could have been related to schizophrenia after all. He also felt that it was possible that he still had schizophrenia, but that the other experiences (his key delusions) were not part of this. In relation to medication, George acknowledged that there may be some advantages if it kept voices away, and if it contributed to reducing his arousal levels. Nevertheless, as he did not think it was effective, an opportunity to change his neuroleptic medication was discussed. Following appropriate negotiation strategies carried out by George, his medication was changed. Although he still was not keen on taking it, the new medication was viewed as an improvement, and he was pleased that the team had taken note of his wishes. This, together with the work that he had been doing described above, assisted greatly with his feelings of anger towards staff, and observed incidents of anger and aggression consistently declined over a period of months. Additionally, the medication change also aided engagement with further therapy sessions.

Later sessions explored the development of his beliefs, including the factors that may have contributed to their onset (including drug taking) and the evidence he had for their reality. Rather than using a strategy to directly disprove his beliefs, a collaborative exploration of whether all of his experiences were real, or whether there was a possibility that aspects of them could have been influenced by schizophrenia, was carried out. George reported that the onset of his experiences was associated with a period of drug taking. He had a number of intense visual hallucinatory experiences after which his beliefs around his special identity began to emerge. The unpleasant "witchcraft phenomena" occurred some time after these initial events and were initially pleasant. It was around this time that he became interested in "spiritual" issues, and read widely around astrology, science fiction and witchcraft. Over a number of months, other psychotic symptoms emerged, including unpleasant auditory hallucinations and beliefs about being targeted by witchcraft. This resulted in George's first admission to hospital.

Various aspects of the evidence contributing to George's beliefs were collaboratively challenged. For example, as George was unhappy with his connection with the past terrorist, his belief regarding his "reincarnation" was investigated. Information was collected from books and the Internet and used to test George's distressing conclusions regarding himself. Two main aspects of information were useful in weakening George's belief: first, we discovered that the terrorist had not died on the day that George was born. Second, information contained within a book that George viewed as highly significant was found to be inaccurate. Identified reasons for the incongruity included: that the book had been changed in order to hide George's identity, and that as he had been using drugs at the time of the original reading he may have been mistaken. George favoured the latter explanation.

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Table 1. Summary of totals for baseline, end of treatment and follow-up assessments

	Total scores								
	George			Henry			James		
Assessment	Base-line 26.1.99	End of treatment 13.9.99	Follow-up 2.8.00	Base-line 26.1.99	End of treatment 13.9.99	Follow-up 20.7.00	Base-line 15.9.98	End of treatment 13.7.99	Follow-up 28.7.00
PANSS total	82	75	65	60	70	42	100	64	71
PANSS positive	19	22	19	13	16	13	30	21	21
PANSS negative	20	11	8	13	12	9	19	13	13
PANSS general	43	42	38	34	42	20	51	30	37
PSYRATS delusions	13	15	0	0	18	6	21	15	13
PSYRATS aud. hallucinations	0	0	0	33	36	22	16	0	31
NAS total	108	77	104	102	79	72	77	999	66
WARS(B) – Anger Index	16	9	13	2	14	2	28	2	11

The final part of therapy focused on capitalising on the progress that had been made. George agreed that schizophrenia was something he had, and that the medication helped with this. He was also aware that he was influenced by thoughts regarding witchcraft, but was more able to test conclusions stemming from such experiences. He gained an awareness of the role of psychosis in his past expressions of anger, and felt that this was no longer a problem for him. Finally, he decided he would discontinue taking drugs, as although he gained considerable pleasure from them, he appreciated that they adversely affected his mental state. Strategies to help George maintain and achieve these gains were documented and collated into a detailed "staying well plan", which was shared with his key nurse on the ward and was used to guide further treatment.

Outcome. Following the intervention George continued to examine the reality of his beliefs, and concluded that there were other aspects that could be inaccurate. Although he did not stop believing that witchcraft and organizations could influence him, he reported less distress associated with the experience due to the belief that he could be more in control if he looked after himself. George was discharged from the unit 3 months later to a supported hostel having maintained his progress. Follow-up appointments indicated that he continued to maintain his gains. The formal independent outcome measures are shown in Table 1. The results demonstrate a clear reduction in the experience of symptoms as measured by the PANSS total score, with the decline in scores being accounted for by a reduction in both negative and general scores. Alterations in George's psychotic experiences can be seen more clearly within the alterations in PSYRATS scores. Of course, some of these improvements may have been attributable to medication change as it is difficult to test exactly what benefits are attributable to what aspect of the intervention. However, George's past medication history (and adherence to medication) had not previously resulted in any significant changes to his mental state, suggesting that the psychological intervention played an important role in the

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changes observed. With regard to anger, George showed clear reductions in self-report anger as measured by the NAS and staff observed aggression on the WARS between baseline and end of treatment, although these did rise again at follow-up.

Henry

Background. Henry was referred to the HDU from another ward, aged 25, following a serious assault upon a staff member. His illness had developed over several years, with his first contact with health services occurring in 1994, and a "revolving door" pattern of discharge and readmission emerging shortly thereafter. His symptoms included auditory hallucinations, which he believed to be God, the Devil, and a dead friend of the family. Henry believed that he experienced such symptoms due to his evil nature about which he had no doubts. He had an extensive history of drug use (e.g. cannabis, ecstasy, LSD and amphetamine), which had regularly exacerbated his mental health problems. He was referred by the ward team for psychological treatment to try and address his difficulties.

Current situation. Initially the unit's working diagnosis was of "paranoid schizophrenia". Symptoms on admission were identical to those mentioned above, with the additional experience of Henry's voices threatening that children would die if he ate food, which he found particularly distressing. While he initially reported that he found that he was less "stressed out" on the HDU, Henry was suspicious of staff: a feeling predominately driven by his voice's comments, which were interpreted as indications that staff were untrustworthy. Such suspicions were a main source of frustration and anger for Henry. The staff's concerns were greatly amplified when Henry attempted to hang himself, an event that, when combined with his lack of response to normal treatment, prompted a referral for CBT 5 months after admission.

Assessment. As with George, a thorough psychometric assessment was carried out by an assistant psychologist. The findings from the psychometric assessment indicated that Henry was experiencing a high degree of positive symptoms as measured by the PANSS and the PSYRATS, which resulted in considerable distress. Additionally, he was also experiencing considerable anxiety, guilt and anger. Anger measures indicated that although Henry scored fairly highly upon subjective experiences as measured by the NAS, staff provided low ratings of behavioural expressions of anger.

Assessment for treatment. A CBT assessment carried out by the second author (IL) identified a number of significant early experiences including the childhood use of illicit substances (i.e. cannabis and LSD, used at 5 and 11 years respectively) and the occurrence of prolonged childhood sexual abuse by a neighbour. Family life was also identified as being volatile.

As with George, engagement in assessment was not straightforward. Henry's engagement in therapy occurred gradually, and he initially either cut short or cancelled several sessions. An initial problem list for assessment included the sole target of helping him to reduce his degree of hopelessness and suicidal ideation, which was related to the worry that his voices had the power to carry out their threats to harm children. This led to some "low key" testing of the voices' power. Later, as Henry began to gain hope regarding the possibility of change, further aims were identified, including:

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1. Gaining further access to the hospital grounds
2. Being discharged from the unit
3. Examining the belief that he was evil
4. Gaining more control over feelings of anger.

Intervention. The former problems clearly had similarities to those of George, and strategies were used to identify factors that were preventing him from leaving the HDU. Distancing the therapeutic relationship from the immediacy of clinical management issues encouraged Henry to reflect upon the clinical management team's concerns about his access and discharge from the unit, and led to the identification of drug use and anger control as further areas for discussion, as these were clearly areas around which decisions about Henry's future discharge were to be based.

Henry was treated over 30 sessions. He was unused to the collaborative nature of CBT, and rapidly became inquisitive about his experiences. He provided a verbal agreement that he would not attempt to kill or harm himself for a period of 3 months, a length of time thought to be a good enough period to discover whether therapy could be useful. A formulation was collaboratively constructed that linked his voice hearing, his beliefs in his evilness and his hopelessness regarding his future and frustration and anger regarding others' lack of understanding. Voice content was believed to be powerful evidence regarding his evilness, and he assumed his voices had extreme power. Henry initially found talking about his voice related beliefs distressing due to his belief that his voices would punish him following discussions. However, he disclosed that his voices could harm children through influencing the actions of others (i.e. murderers) and through the deliberate use of natural disasters (e.g. tornadoes and famine). As the latter source of threat was identified as more troubling, information was gathered about such events as natural meteorological phenomenon. For example, identifying that these potentially catastrophic events occurred within unpopulated areas, but were not publicized due to the dull nature of the stories, helped Henry to achieve further flexibility within the belief. As Henry indicated that his concerns would be greatly reduced if his experiences were caused by an illness, this alternative explanation was supported whenever appropriate.

An historical review procedure also proved useful in further weakening Henry's beliefs in the power of the voices. He had for some years experienced the voices directly threatening the safety of a friend's son. The review identified that the worst fate that had befallen the child during this time was a serious cold, which the voices had then wrongly claimed to be life threatening. Exploring how Henry would react to such threats if they were continually provided by nosy, threatening neighbours was also useful in helping him to reduce the high affect associated with his beliefs. Significantly, it was identified that the voices had never predicted that deaths would occur, only declaring that Henry was responsible after the event. Again, the "neighbour analogy" proved to be an effective method of testing out the possible implications of this pattern. Henry's observation that the voices also mentioned silly statements, such as "the ashtray is floating", and a behavioural experiment (i.e. hyperventilation) in which the voices were intentionally activated, further contributed to the erosion of the belief regarding their perceived omnipotence.

As the content of the voices were self-schema congruent, aspects of the schema-based approach as outlined by Padesky (1994) were used in order to aid the development of alternative core beliefs. As Henry viewed himself as being 100% evil, a continuum approach was used. Definitions of total evilness and total normality were used to anchor either end of the continuum.

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The definition of evilness was separated into a number of qualities (e.g. a total lack of concern for others and a total lack of guilt), along with Henry's view of the normal alternative (e.g. a concern for the well being of others, and the experience of guilt and remorse). As Henry experienced severe guilt and shame associated with prior life events, and clearly cared for his parents, children in general, and some of the other patients, it was possible to gently guide him to consider the discrepancies between his definitions and his beliefs regarding himself. Asking Henry to place himself, people from history who had committed atrocities (e.g. Hitler), and people from his own life (e.g. his abuser) on a continuum of evilness to normality was also useful in introducing dissonance. Henry initially found this work confusing and distressing and careful pacing was required in order to ensure that he was able to accommodate this novel information. The self-prejudice model (Padesky, 1990) was used in order to normalize Henry's tendency to assimilate information into his pre-existing beliefs regarding both himself and his voices. This process was useful in helping him to realize that he was actively dismissing information, but that this was to be expected with strongly held beliefs.

An historical review procedure was also effective in challenging aspects of the evidence Henry was using to support the conclusion that he was evil (e.g. past aggression, specifically to other family members, and the forced participation within an abusive act). Henry was gradually able to identify that his aggression towards his father occurred when his moods were unstable due to "serious" drug use, and that his father also was at times aggressive, especially when he had been drinking heavily. Similarly, in relation to his forced participation in an abusive act, Henry was able to recall the degree of threat associated with non-compliance for himself as a young child, and the other child from his abuser, and was able to appreciate how powerless he was within the situation. Following this work, Henry was able to begin to challenge the view of himself as being inherently evil, and reported that his conviction within his belief had fallen from 100% to 30%.

Difficulties with anger were formulated to be, in part, a result of the considerable stress Henry experienced as a result of his delusional belief regarding his "evilness", and the frustration he experienced with others' apparent lack of understanding (i.e. referring to such experiences as an illness). Additionally, Henry was able to identify positive beliefs regarding anger in the short term (e.g. providing feelings of control and power), along with long term concerns about anger (e.g. feeling out of control and viewing past experiences of anger as representing further evidence of his "evilness"). Henry responded well to a basic CBT formulation of his anger, and was able to gradually develop skills in recognizing and identifying anger related cognitions and test these out. Specific action plans were also used (implemented as behavioural experiments) in order to increase Henry's ability to test out ideas, such as discussing issues of trust with staff. Anger was therefore focused upon as being "nested" in the frustrations associated with other key concerns, and was then gradually targeted using a standard CBT method, mainly involving the identification and challenging of "hot (anger-related) cognitions".

Henry gradually made considerable progress in collecting evidence that he viewed as disproving the belief that his voices were powerful. However, a serious setback occurred when the media reported a series of children's deaths. Although he was able to cope with the first incident, he found the number of reports in a short space of time overwhelming. Nevertheless, the re-emerging conviction within the previously held beliefs was gradually reduced by the reapplication of the formulations. As with George, a detailed staying well plan, noting the range of mini-formulations and coping strategies was provided for his key nurse, who provided continuing support after therapy had ended.

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Outcome. At the termination of therapy Henry's retained his reduced conviction regarding his evilness. Additionally, he viewed his voices as being more likely to be caused by an illness, with the implication that the "voice's threats" were hollow. He also stated that he had become far more wary of the effects of drugs and intended to avoid further use. However, he noted that this would be problematic due to the high availability of drugs within his local area. Nevertheless, at follow-up, when he was visiting his home frequently, he had managed to avoid substance use, and had received positive feedback from his friends regarding his efforts and his improved general well being. Henry also indicated that his problems associated with anger had reduced. This was linked to an increase in understanding of the factors contributing to anger and aggression (i.e. potentially biased appraisals), and a general increase in feelings of optimism regarding his ability to cope with future problems.

The above mentioned changes are apparent in the scores from the questionnaires. The psychometric scores demonstrated a significant fall in symptoms, as demonstrated by a decline in the PANSS total score at follow-up accounted for by a fall in negative and general subscale scores. PSYRATS scores also demonstrated a reduction in the severity of delusions at follow-up. The significant increase in delusions noted between admission and the termination of therapy was attributed (by both the therapist and Henry) to be due to Henry's increased ability to trust others and disclose psychosis related information rather than a true increase in symptoms. As such, the increase in reported symptoms can be viewed as a successful aspect of the intervention as it enabled Henry to discuss and thus integrate his experiences.

In relation to Henry's experience of anger, NAS scores significantly decreased. The staff-rated anger on the WARS increased at end of treatment, but clinical observations indicated that this was due to Henry's experience of conflict on the ward with another patient who was experiencing difficulties in controlling his symptoms. Once the situation had resolved, Henry's scores on the staff rated measure reduced.

James

Although James attended therapy, the degree to which he engaged within the central process of collaborative exploration was questionable. Hence, this case is reported in order to highlight and normalize the potential difficulties of working with patients with complex needs within a HDU population. Like the previous two cases, James was referred by the ward team for psychological assessment and treatment as a way to attempt to address his difficulties with psychosis, anger and hostility.

Background. James, aged 32, had an extensive history of mental health problems stretching back into his late adolescence, preceded by significant childhood behavioural problems for which professional help had been sought. Within adult services, James's mental health problems began following a two-year intensive period of drug use (i.e. amphetamine, cannabis and alcohol). His main symptoms at that time included voice hearing and secondary delusional beliefs concerning a spiritual entity believed to inhabit personal computers and the national power grid, which he communicated with via telepathic phenomenon. While James reported that these experiences did not cause him distress, he had previously believed that people were attempting to harm him, and had consequently occasionally barricaded himself into his flat, and on one occasion had armed himself with a knife. Additionally, James protected himself by uttering a range of "oaths" – specific neologisms that were said in situations of perceived danger in order to enhance his safety.

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James had been admitted to psychiatric units on numerous occasions, provided with standard medication and, following relative stabilization, returned to live in the community. Unfortunately, his amphetamine use had regularly exacerbated his mental health problems leading to numerous readmissions. On one such admission he was referred to the HDU following management difficulties stemming from his tendency to frequently abscond from the ward in order to obtain amphetamine, which led to serious management problems for the ward staff (i.e. behaviour associated with increased hostility). Once on the HDU, James was referred for cognitive-behavioural therapy due to the medication resistant nature of his symptoms, and his "lack of insight".

Assessment. James was assessed by an assistant psychologist using the previously mentioned measures. The data gathered within the psychometric assessment are shown in Table 1. His scores on the psychometric assessment revealed a high degree of positive symptoms, as indicated on the PANSS. James's high conviction in his delusional beliefs can be seen in more detail on the PSYRATS data. James's NAS scores appeared to be slightly lower than George and Henry's. However, staff provided relatively high ratings of observational measures on the WARS. Again, like George, it was thought that there was significant under-reporting on the self-report anger measure as James's frequently expressed hostile and angry feelings towards the ward staff and his family.

Assessment for treatment. A CBT assessment carried out by the second author revealed that James viewed himself as being well, capable, eloquent and extremely intelligent. He believed that ward staff, along with other professionals and family members were punishing him for past "petty crimes" and drug use. As with George and Henry, he was extremely unhappy and angry at being incarcerated on the ward. He viewed his previous mental health problems as transitory states of confusion associated with substance use. Like George, he completely disagreed with his diagnosis, and was frustrated that the HDU psychiatrist did not believe in spiritualism: a belief system that holds that spirits exist and can be communicated with. As would be predicted, medication was also viewed as a further aspect of ward punishment.

Initially, James appeared to engage easily with therapy and identified a number of problems that he wished to focus on. For example, gaining more access time from the ward, leaving the HDU completely, buying a car, and finding a girlfriend and a flat. Problems were also identified within the areas of assertiveness, anxiety, anger and aggression. Furthermore, he wished to gain information regarding the psychiatric understanding of illness, especially in relation to voice hearing, and paranoia. However, James's main problem, which he wished to prioritize, was his lack of ability to gain access to funds in order to pay for plastic surgery. He viewed himself as being extremely ugly and believed that without the surgery he would be unable to have a relationship.

Although the initial problem list was quite extensive, James's view of his difficulties was changeable. In the second assessment session he stated that the previously mentioned problems were no longer causing distress, apart from the difficulties he experienced in convincing the psychiatric profession of the value of spiritualism, and his need for facial surgery. He was ambivalent with regard to the implications of his amphetamine use, and viewed others as being unreasonable in their reactions to this. Voice-related experiences were viewed as communications with spirits, which were believed to be real phenomenon. When these factors are combined it is not surprising that James was angry at a range of professionals and family members regarding his forced residency on the unit.

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Intervention. James was seen for 30 sessions of CBT. As with the other two cases, this work was complemented with motivational interviewing strategies for issues associated with drug use. Although he initially cut several sessions short, James gradually began to attend regularly. However, it was difficult to identify the motivation for attendance, as he would frequently become evasive, contradictory and, at times, accusatory. Although it was possible to formulate this "resistance" as a potential product of his beliefs regarding the ward, great difficulty was experienced in encouraging James to be forthcoming with possible concerns.

Initially, as James had prioritized worries regarding his facial appearance, time was spent discussing these concerns. However, it quickly became apparent that these beliefs were particularly fixed and longstanding. James's parents had previously funded three dental surgery operations, which had a short-term effect, but no lasting impact. Nevertheless, he expressed considerable anger regarding his parent's unwillingness to pay for further surgery. As James received a reduced rate of Disability Living Allowance (contingent on ward admission), he experienced problems in saving for his desired operations, which was a source of further frustration. James was aware of the concept of Body Dysmorphic Disorder, but strongly rejected the possibility that his experience could be related to this. James would become increasingly frustrated when discussion touched on issues relating to alternatives to surgery. As a result, in order that his engagement in therapy could be maintained this was not prioritized as an area of work.

James reported that he viewed staff on the unit as being dishonest with him in connection with a number of concerns, such as the reasons for his admission and their reported lack of knowledge of spirits and "oathing". As this perceived dishonesty led to feelings of anger, the beliefs were consequently viewed as distal factors that increased the potential for aggressive behaviour. Consequently, the intervention focused upon James' perceived theme of unjust punishment. As a community placement had failed prior to referral for CBT, and James viewed his forced return as a further punishment, the incident was collaboratively selected as a focus for investigation. The placement failed due to James's use of amphetamine immediately on leaving the HDU. This had resulted in an identifiable increase in disinhibited behaviour. As mentioned with the other cases, a third party, non-ward alliance approach was adapted from which Socratic questions and motivational interviewing strategies were used to attempt to guide James to consider the clinical team's possible concerns regarding his drug use. Although he noted that he was hostile at times when using amphetamine, he experienced considerable difficulties linking this observation with the ward team's concerns, and remained adamant that his return to the ward reflected a punishment.

Nonetheless, a greater understanding of James's drug use was gained. He revealed, for example, that amphetamine increased his confidence, reduced his concerns about being attacked, thus enabling him to go out more, and increased his ability to communicate with spirits (i.e. made their voices clearer, louder and more frequent). Unsurprisingly, James was ambivalent with regard to the possibility of working upon his substance use. However, some self-motivational factors were identified, including the prediction that further amphetamine use could easily be identified due to marked behavioural changes, and that this would be likely to result in a readmission to a locked ward. This prediction gained further weight when associated with James's frustrations regarding his low income and associated lack of ability to pay for his desired cosmetic surgery.

Over the course of therapy, James experienced numerous periods of increased restrictions in ward access following behaviour that staff believed to represent a worsening of mental

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state. For example, his Christmas leave was cancelled after he sent an ex-employer a card containing thinly veiled threats. Although James could identify that the card was threatening, he was unable to appreciate why this would contribute to his leave being cancelled, and again believed that he was being unjustly punished. He was clearly experiencing difficulties considering others' points of view, a pattern that could be seen as representing problems with theory of mind (TOM). It has recently been suggested that TOM deficits, when combined with external, personalizing attributional biases could explain the type of processing associated with persecutory paranoia (Bentall & Kinderman, 1998). Unfortunately, it appeared that James's difficulty could have contributed to the emergence of a vicious circle on the ward where staff withheld his leave from the ward following minor transgressions of ward routine. These occurrences, although infrequent, clearly contaminated the interpersonal environment and further contributed to James' beliefs of persecution and associated feelings of anger. This would appear to be a potentially common pattern in environments where custodial and therapeutic roles for staff are combined. Similarly, Barrowclough et al. (2001) have recently noted that patients within secure environments are cognisant of staff's negative attitudes towards them, and that poor staff-patient relationship factors tend to be associated with a poor outcome.

While on the unit, James's symptoms also worsened following the admission of a large male patient who was seriously unwell and threatening to others. James disclosed that, although he was extremely careful about what he said to other patients on the ward, he was concerned that he would be badly attacked and mutilated due to other patients being able to read his thoughts via telepathy. James coped with his anxiety by increasing his use of "oathing". He became distressed when discussing his concerns due to his belief that thinking about possible attacks could contribute to their occurrence, and subsequently denied that he was experiencing a problem. This was a common theme when working with James. Disclosures were often followed by anxiety and denial that he had reported problems, as he believed these might be used to increase his admission time on the HDU. Although progress in therapy was limited by a number of factors, James continued to engage in therapy and it was possible to construct a meaningful staying well plan that included strategies to deal with some of the stressful events described above.

Outcome. Although James did not appear to fully engage in the process of collaborative investigation, the results from the psychometric scales did indicate that he benefited from the process of therapy. PANSS scores indicate a fall in total score, with slight decreases in positive and negative scores and general scores. PSYRATS scores indicate a reduction in severity of delusions. It is possible, however, that these decreases may not have reflected a true decrease in psychotic symptoms and may have reflected an increasingly willingness to discuss symptoms. In relation to anger measures, the NAS scores were reduced at follow-up, but he did not complete the NAS at post-treatment. However, staff-rated anger on the WARS at post-treatment was greatly reduced from baseline, and although follow-up on this measure did rise, it still remained well below baseline. In addition, James was discharged from the ward to a community hostel similar to that of George. At follow-up he appeared to have some difficulties that were similar to those experienced on the HDU, although not severe enough to warrant a readmission to a more secure environment. It appears possible that CBT may have helped James to consider the possibility that others around him were not being deceitful when expressing confusion at his beliefs, but were genuinely puzzled. If so, this would have

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been a significant change in James's understanding, which would have been likely to have contributed to reducing his ongoing feelings of frustration with others in the health system.

Discussion

The work described in this paper focused upon the treatment of psychosis and anger, a previously unreported area within the cognitive behavioural literature. A clear cognitive-behavioural rationale was used throughout, complemented, when appropriate, with strategies adopted from motivational interviewing and schema approaches. Assessment results indicate that patients benefited from the work, with an overall pattern of reduction of psychotic symptoms and general distress, reflected in the reduced PANSS and PSYRATS scores. Additionally, reduced measures of anger were found on both the self-report and independently rated scales. Also, some indications were found of attitude change towards substance use, but as these were not independently measured these possible changes need to be viewed with caution. Although the self-report measures used in this study were viewed to be the most appropriate tools available for measuring outcome in this group of patients, there are clearly possibilities that their accuracy and validity is questionable with this group of patients. Henry clearly stated that he did not disclose experiences that he later acknowledged to be present regarding his psychosis and it is possible that James disclosed less as he became increasingly less engaged with his environment. These observations perhaps suggest that multiple methods of assessing outcome be employed and that interviewers are cautious about findings.

Due to the specific needs of patients within the HDU setting, certain aspects of the process of therapy received a greater emphasis than might be expected within a community sample. For example, rather than assuming a relatively straightforward engagement process, slow engagement strategies were used to carefully clarify the patient's potential goals and the possibility that they could be addressed within therapy (e.g. identifying and working upon the factors contributing to the patient being on the ward). Great care was also taken throughout the progress of therapy to address the factors that could endanger the therapeutic alliance (Safran, 1998). For example, the worries the patients experienced regarding the possible implications for disclosing illness-related information was especially important, and understandable within the context of a locked ward. Issues of trust between patient and therapist were therefore extremely important, and were addressed explicitly when required. Distancing the therapeutic work from the day to day decisions of the clinical team appeared to contribute to easing these potential difficulties. Although ruptures within the therapeutic alliance could be viewed as slowing the overall progress of therapy, these events often provided useful concrete examples of the outcomes of the interactive nature of the patients' symptoms, beliefs and environment, which could contribute to the difficulties with anger. The association between the psychological processes involved in delusional beliefs and anger has previously been recognized (Hafner & Boker, 1972; Taylor, 1985; Link et al., 1992), and a possible association has recently been observed between the processing style of the "poor me" paranoia (Chadwick, Birchwood, & Trower, 1996), and the types of biases typically associated with anger related problems (Howells, 1998). Work upon collaboratively testing aspects of the patients' delusional beliefs contributed the main bulk of the interventions reported above. Consequently, approaches to anger related issues, rather than being a separate aspect of the therapy, were addressed within the overall patients' formulation.

The stress of working on a day to day basis on HDUs with patients who are, at times, extremely challenging cannot be overestimated. Although the vast majority of staff appear

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to be able to disentangle themselves from the negative aspects of the patient's interactions, others may become ensnared. This may involve responding in negative interchanges that may serve to confirm the patient's either psychotically based, or schema driven views of others (e.g. that they are untrustworthy, or aggressive). Recent work has identified that the relationship between patient and key nurse holds significant implications for the patient's recovery, and that patients tend to be aware if a negative relationship exists (Barrowclough et al., 2001). Simultaneous work upon key staff's beliefs regarding their patients could therefore be considered an important and potentially standard aspect of a CBT approach with this client group. This strategy has been previously emphasized in therapeutic approaches within a non psychotic inpatient setting (Ludgate, Wright, Bowers, & Camp, 1993), and complements the call for the use of systems analysis in understanding anger and its treatment (Robins & Novaco, 1999).

Work with patients from a HDU population is predictably complex, partially due to the long-standing nature of the problems, and the associated interpersonal impact of such patients who are unlikely to be able to move rapidly to a position of trust. As with all therapeutic situations, the increasing demands placed upon the therapist need to be counterbalanced by regular, high quality supervision. Therapists may have to cope, for example, with patients who initially repeatedly reject or ridicule their efforts to understand and assist. A non-personalizing view of this behaviour would suggest that patients' attempts to control aspects of their interpersonal world are normal within an otherwise extremely controlling environment. The ability to avoid being drawn into a pattern, or interpersonal cycle, that could confirm the patient's negative beliefs about others would appear to be a fundamental aspect of therapy (Safran & Segal, 1990).

While working with a wide range of other professions can clearly bring a range of advantages, such as specialist assessments, clear channels of communication and support, it also invariably brings challenges. Within the authors' experience it is possible that patients could be receiving input from different professionals, such as psychiatrists, art therapists and nurses. The potentially confusing nature of the differing types of therapeutic approaches cannot be underestimated, and efforts need to be made to negotiate areas of expertise. Although these are standard issues within normal service provision for patients with psychosis, related issues may become more acute within services for more complex patients.

The patients discussed in this paper experienced long-standing problems, with complex symptomology impacting upon interpersonal relationships. Each had a history of substance abuse, which had clearly exacerbated their problems with mental health. The value of CBT for patients within a HDU environment appears to be that of providing a neutral arena for the exploration of beliefs concerning their experience, thus supporting the integration of complex illness-related experiences. This role appears to be an extremely useful one when set against the potential polarities that can occur when models of explanations (e.g. spiritual versus medical) clash.

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