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The Use of Card Sort Exercises in the Prevention of Relapse in Serious Mental Illness

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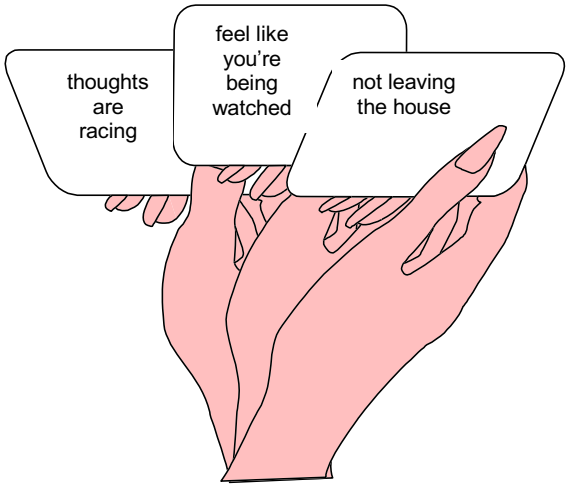
Introduction

The identification of early warning signs in serious mental illness is a key factor in any attempt at the prevention of relapse. This is the case whether the illness is Schizophrenia or Bipolar Affective Disorder. Different authorities have described different ways of identifying early warning signs of relapse, and have also tended to have different perspectives on using these signs in order to intervene early in the process of relapse, thereby preventing the re-admission of a patient to hospital.



The purpose of the present paper is to describe the different methods which have been used to identify early warning signs of relapse, to identify the advantages and disadvantages of the different methods and to describe our own experience, with a synthesis of the different methods which we have ourselves devised. We believe that our own method, being a synthesis of methods described in the literature, is a robust and relatively easy method of identifying early warning signs of relapse, providing the maximum chance of reducing readmissions.

This is a preliminary paper based upon our experience to date, rather than a randomised control trial of relapse prevention. Such a study is indeed necessary, and we propose to attempt to produce such a study in the future. However, we feel that a clear description of our method of identifying early warning signs is a necessary first step. It is also necessary to state that we believe that our method, which contains a number of stages, should in future be trialed exactly as described, for there is a possibility that should some of the stages that be excluded or be completed in the wrong order, then a different sequence of early warning signs might be described, which may be less effective in preventing relapse.

Review of the Literature

Essentially, all attempts at identifying early warning signs depend on taking a carefu history from a patient who has had several relapses of illness over a period of time. It is expected that relapses develop over a period of several weeks, and that visually the sequence of symptoms leading to a relapse is the same on each occasion. Therefore, if this can be indicated to the patient and his family, the patient can learn to identify the onset of the illness early, and therefore seek help sooner, with the result that appropriate treatment leads to the aborting of the relapse progression and to the prevention of the patient's readmission to hospital.

Falloon et al (1996), in their Manual of Behavioural Family Therapy, puts the identification of early warning signs of relapse in the context of psycho-education of the family about the patient's illness. It is therefore not just the patient, but the whole family, who are asked about the early warning signs of relapse. This has the advantage that family-members may notice signs of relapse which the patient might have missed, and may notice them before the patient does so. Sometimes the patient may

actually prefer not to notice the early signs of relapse, as he might want to avoid admitting that he is relapsing in an attempt to evade readmission to hospital. Therefore, the result of Falloon's method is a list of early warning signs, which are agreed in writing by the patient and his family. This then leads to an agreed written plan of action, which is signed by all parties concerned, wherein the family agrees what is to be done should the identified signs be noted by the patient or his family. Falloon applies this method to patients who are suffering from both Schizophrenia and Bipolar Affective Disorder.

Lam et al (2000) have published a Manual on Cognitive Behaviour Therapy for Bipolar Affective Disorder. They rely on careful history taking to identify two different relapse sequences in bipolar patients. One sequence of early warning signs, which develops over several weeks, is a sequence of signs indicating the gradual development of mania. Another, which only lasts a few days, indicates the development of depression. The signs of the development of mania are classical, in that they tend to show a gradual increase in creativity and/or goal-directed activity, while the early depressive signs are in fact milder versions of the symptoms of depression. Lam is very specific in allowing the patient the latitude of giving his history in his own words without using any form of prompts, be they closed questions or prompt cards.

Smith, in recent published lectures, has emphasised the importance of 'relapse signatures', which are signs or sets of signs that are very specific to the patient and will not, therefore, be found in any standard published list of early warning signs. One good example of a relapse signature from our own experience is that of a young Italian woman who suffers from Bipolar Affective Disorder. Her family noted that periodically she would express the wish to return from England to Italy and, at the same time, commence a diet which she would initiate. Two weeks later she would inevitably have to be readmitted to hospital suffering from a manic episode. Thus this urge to go to Italy and to go on a diet constituted a relapse signature for this lady.

George, in a series of psycho-educational booklets for bipolar patients, takes the exact opposite view to Lam. George describes a series of 40 classical relapse signs for mania and describes a card sort exercise, whereby the patient sorts through a series of cards on which are written the relapse signs for mania, choosing a series of signs which describe his own sequence of relapse signs.

Birchwood et al (2000) re-published, in their IRIS Early Intervention Guidelines, a table of 58 signs of early relapse in psychosis which they had published as a validated series of signs in an earlier paper. Birchwood et al recommend a card sort exercise in two stages.

First, the patient sorts through a series of cards with the 58 validated signs written on them and chooses the ones which he identifies as those relapse signs which he experiences. Next, the patients arranges the cards which he has sorted on a 'time line', with the earliest symptom placed earliest and the cards then ordered so that the symptoms are arranged chronologically, from the earliest sign up to the ones which are closest to the day of relapse or 'crisis' - these are placed closest to the point of crisis. This gives an accurate picture of the progression of symptoms.

Therefore, there is some disagreement between different authorities. Some, like Lam, value the patient's own unprompted history of the progression of symptoms described orally. Others, like George and Birchwood, value a very accurate, detailed set of relapse symptoms in chronological order developed by the use of a card prompt system. Some authorities, like Smith, value the idiosyncratic relapse signatures which, being so individual to a patient, cannot be identified by a card sort. Others, like Falloon, value the input of the patient's family into the identification of early warning signs.

It is clear from the above that none of these various concepts are mutually exclusive. Our own approach has therefore been to synthesize together all of these concepts in order to produce a reliable, effective and robust method of accurately identifying early warning signs of relapse.

Our Method of Identification of Early Warning Signs of relapse

Our aim was to develop one methodology by which the early warning signs of both Schizophrenia (Psychosis) and Bipolar Affective Disorder could be accurately identified.

Stage 1

It is clear that it is extremely important that the patient and, indeed, his family, be enabled in words of their own choosing to identify the fact that certain signs do occur before experiencing a major relapse of his illness. Therefore, we take as the day of crisis or relapse the day when the patient needs to be admitted as an emergency to hospital, and he is asked to describe signs and symptoms that he had begun to experience in the days building up to this day of crisis. If the patient lives with his family, and we are offering Behavioural Family Therapy based on the Falloon model, then the family is encouraged to participate in the identification of early warning signs. Often, family and friends will have noticed some signs which the patient has missed, or it might be that the patient has been ignoring some signs in a semi-deliberate manner because he did not wish to admit to the possibility that he might be relapsing, with the increased possibility of readmission to hospital. The family's contribution is, therefore, extremely useful at this point. The early warning signs that the family and the patient have reported are carefully recorded. *It is important that this careful history-taking is carried out first, before any prompt cards are shown, so as not to prejudice the patient's recollection of events by asking leading questions.* Thus, the symptoms which the patient and family recollect, including patient-specific 'relapse signatures', are identified.

Stage 2

The card-sort exercise is now commenced using a collection of about 100 cards with symptoms inscribed on them. These are divided into three sub-sets. The first sub-set are the 56 symptoms described by Birchwood et al (2000) as being common relapse signs for psychosis—these cards are marked SI — 56. The second sub-set are a group of cards based on Lam (2000) and George, which are symptoms specific to mania, but excluding symptoms already listed in the first sub-set—these are labelled M1 – 30. The final group are symptoms of depressive relapse gleaned from Lam's book—labelled D1 – 16.

In the case of a patient who is known to suffer from schizophrenia, only cards S1 — 56 are used. The patient is given this sub-set of cards and is asked to go through it and to identify those cards on which are inscribed symptoms which he experiences.

In the case of a patient suffering from bipolar affective disorder, the relapse signs for mania are identified by giving the patient both the sub-set S1 — 56 for psychosis and the sub-set MI — 30, which are symptoms specific to mania. The patient again identifies those cards on which are inscribed the symptoms which he experiences.

Stage 3

Once the patient has identified the early warning signs of relapse, as above, the symptoms which had been identified in the first stage are inscribed on blank cards and added to the group of cards which had been identified in the second stage. Any duplicate cards are eliminated.

The patient is then presented with a 'time-line', which is a line drawn on a sheet of paper, one end of which is marked the day of crisis and along which are marked out five weeks leading to the crisis point. The patient is asked to take his chosen pile of symptom cards and arrange them in chronological order along the time line, with the earliest symptom being most distant from the crisis day. In practice, the symptoms are collected into piles, each pile representing a particular week before relapse. The specific relapse signature cards have now been integrated into the same chronological sequence as the rest of the cards.

The investigator then takes note of the whole of the sequence of the early signs of relapse as described by the chronological order of the piles of cards.

This completes the recording of the relapse signature for a patient suffering from schizophrenia or mania.

Stage 4
For patients suffering from bipolar disorder, the process is now repeated to identify the depressive relapse signature. This time, the patient and his family are asked first to identify specific symptoms, which are experienced before a bout of depression. Again, the symptoms that the patient or family produce are inscribed on cards. A card sort then takes place, this time using the cards for Psychosis SI — 56 as well as DI — 16, which are specific to depression. Next, the symptoms identified by the patient and his family are added to the cards which have been chosen, and again the cards are arranged on a time line as described above, and then the results are noted down as a relapse signature pattern, which will be different, and is always shorter in duration, than the sequence of early warning signs for mania.

This completes the procedure for the identification of early warning signs.

The Development of our Method of Early Warning Signs Identification

We initially began to identify early signs of relapse by taking a detailed history, where possible, involving the patient's family, after the manner described by Falloon (1996). We found that in practice, whereas patients or their families were able on occasion to identify idiosyncratic relapse signatures as in the case described above, patients seemed to be unable to produce a very detailed sequence of early warning signs, even when it appeared likely that such signs were in fact present. Thus, the identification of early warning signs developed by taking a careful history using open questions appeared likely to be incomplete. Furthermore, it was noted that patients who had a history of bipolar affective disorder were able to identify early signs of an episode of mania at most two weeks before the onset of the condition, whereas patients with schizophrenia or schizo-affective disorder found great difficulty in identifying any early warning signs at all and, when they did do so, they only seemed able to identify signs occurring one week before a crisis. One to two weeks prior to a crisis leaves very little opportunity to intervene effectively to prevent a crisis occurring.

We then introduced the card-sort and time-line exercises as we have described. We found that patients of all types — including those who suffered from schizophrenia, schizo-affective disorder and mania — were able to produce a much more detailed sequence of early warning signs of relapse, and that they usually could produce a sequence of signs spread over a three to four week period before the crisis, thus making it much more possible to intervene.

Moreover, some patients were able to produce a very interesting sequence of signs.

Short Case Illustration

One patient (whose care will be published in a separate article), who suffered from schizo-affective disorder, was able to produce a four-week sequence of early signs of relapse:

- four weeks before the crisis she would be generally unwell and somewhat low in mood;
- three weeks before the crisis she would be depressed;
- two weeks before the crisis she would become increasingly paranoid;
- her paranoia would deepen into severe paranoia over the last week before the crisis.

We found that increasing her dose of Venlafaxine when she began to feel depressed, that is three weeks before a crisis was likely to occur, had the effect of aborting this sequence of events and averted the crisis. We have intervened on two occasions to prevent a crisis over a nine month period—on one occasion a change was made to her medication and on another she was merely reviewed by her consultant and given stress management advice by us. For the last nine months, this patient (who previously had been having long repeated periods of formal admission and is on the Supervision Register) has stayed out of hospital. It should be added that, some time before our intervention, her drug treatment had been optimised and rationalised to a combination of Clozapine and Venlafaxine. Nonetheless, we consider that we have been able to contribute significantly to the maintenance of this client in the community. That the card sort exercise contributes such a well-defined, detailed sequence of early warning signs of relapse is that patients have indeed been experiencing early signs of relapse but, until prompted by the cards, have thus far failed to identify them as related to their illness.

Conclusion

The card sort exercise, as described above, provides an extremely detailed picture of the phenomenology of the patient's illness. The consequence of this is that on occasions the patient's diagnosis may be challenged. We have now seen two patients, both of whom were believed to suffer from bipolar affective disorder, but neither of whom were able to demonstrate a clear 'manic' sequence of early warning signs, nor could they demonstrate any short 'depressive' sequence of early warning signs. Indeed, they failed to identify any cards from the mania (M) and depression (D) sub-sets of cards, but only chose cards from the psychotic (S) sub-set. Thus, clearly these patients were experiencing a schizo-affective disorder, suffering recurrent discrete bouts of psychosis, and not in fact suffering from bipolar affective disorder.

The card sort is not difficult carry out. Another bipolar patient believed to suffer bouts of strange, unpredictable, risky behaviour demonstrated such great distractibility and confusion when doing the card sort that a decision was made to investigate her for a possible organic problem. Therefore, the card sort exercise can have diagnostic implications which go far beyond the identification of early warning signs.

The history, card sort and time-line exercises, as we have described them, take about three quarters of an hour to complete. They are well within the scope of any Community Mental Health Nurse, Primary Care Nurse or Counsellor.

We believe that these exercises are likely to be a major contribution to the aim of reducing unnecessary hospital re-admissions. They must not, however, been seen in isolation. The optimising of medication, a clear action plan agreed by the patient and his family as to what to do when relapse appears likely, the easy availability of knowledgeable help from staff who know the patient and the availability of a 'relapse drill, which includes training in stress management techniques and cognitive skills which the patient can use in order to combat negative thoughts, are also essential to a strategy to prevent relapse in serious mental illness.

References

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