

## A Longitudinal Study of Psychological and Social Factors Affecting Recovery from Psychiatric Breakdowns

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Thirty-five people who had suffered a recent onset of symptoms of depression and/or anxiety were interviewed soon after being seen by a clinician, and again six months later. Symptom scores at the second interview were predicted by whether any plans subjects had formed by the first interview had gone wrong, by major non-health difficulties, and by internal, stable and global attributions made at the first interview about the event or difficulty that was most distressing before symptoms became severe.

There is now much evidence that psychological and social factors affect onset of depression (e.g. Brown & Harris, 1978; Brown *et al*, 1986; Oatley & Bolton, 1985). Much less is known, however, about factors that affect whether psychiatric symptoms become chronic.

We report here a longitudinal study of this problem with 35 patients. Many more would be necessary to examine with statistical precision the full range of factors that should be considered. Nevertheless, even with this small sample we can point to factors that are important in influencing the persistence of symptoms.

Our study was based on the following perspective. People have plans, aspirations or directions that inform their lives. They may cultivate these in areas such as work, sexual relationships, the family and leisure activities. Serious life events are typically, as argued by Oatley & Bolton (1985) and by Oatley (1988), events that remove a fundamental role from a person, and undermine a life plan in at least one such area. An onset of depression can then result if the person has no alternative means of maintaining a sense of himself or herself. Moreover, Perring *et al* (1988) have shown that conflicts between plans in different areas of life, for instance between work and family, are also associated with psychiatric symptoms.

According to this hypothesis, recovery from a depressive breakdown will be affected by how and when the person can construct new roles and new plans that are sustaining, and that do not involve substantial conflict.

The research reported here involved one interview shortly after the patient had seen a clinician for onset of symptoms, and a second six months later. We tested hypotheses about success of new plans and other psychosocial variables by predicting who would be symptomatic at the second interview. The study

extends work of Tennant *et al* (1981), who found that events which neutralise threatening events allow remission of depression. It can be compared with work by Brown *et al* (1988), who have studied recovery from chronic depression in a community sample, and who also have surveyed the literature on recovery from depression. Our study is complementary to those in which severity of symptoms, chronic psychiatric problems, or constitutional factors predict recovery (e.g. Huxley *et al*, 1979; Mann *et al*, 1981; Murphy, 1983; Parker *et al*, 1985). It is also complementary to trials in which treatments such as pharmacotherapy and psychotherapy are evaluated.

### Method

Thirty-five out-patients (23 women and 12 men) aged 18–65 (mean 38) took part. Criteria for entry into the study were that each had a recent onset or exacerbation of symptoms of depression and/or anxiety, without psychotic features, which had prompted him/her to seek professional help. People were included who had referred themselves or been referred for treatment. Any who had chronic psychiatric symptoms reaching at least borderline caseness as defined by Brown & Harris (1978) in the year before we saw them were excluded.

Patients were contacted through two agencies of each of the following three types: community mental health centres, psychology departments of psychiatric hospitals, and general practitioners' (GPs') surgeries. They were first asked by the clinician whom they were seeing if they would be willing to take part. Because of differing procedures at the different agencies, an overall response rate is approximate. Our most accurate figures come from our largest source, community mental health centres, where 64 people met our criteria and were approached: 27 agreed, 10 were not interviewed on the advice of their clinician, and 27 refused when asked by the clinician. This is a response rate of 42%. The GPs and hospital psychology departments were not able to give us accurate figures of how many people had been

approached. Our follow-up rate, on the other hand, was very high. Only one subject of the original 36 interviewed at time 1 was not interviewed at time 2: he had moved and could not be traced. The original response rate was low because it took place in settings that were not research orientated, and especially because we ourselves were not able to ask people to participate but had to rely on clinicians who were not all motivated to ask people on our behalf. Although the low initial response rate may introduce some bias, our almost perfect follow-up rate allows conclusions to be drawn. We therefore concentrate our analyses not on general rates of recovery, but on factors predicting differences between people whose symptoms did and did not improve.

All who agreed to participate gave informed consent, and ethical permission was obtained from relevant local health authorities.

### Procedure

Two semistructured interviews were conducted, the first at time 1, as soon as possible after being seen by a clinician, and the second at time 2, six months later. Except for one in a university office, all interviews were in participants' homes.

Symptom severity was assessed at both interviews using the shortened version of Present State Examination (PSE (9th edn); Wing *et al.*, 1964), which includes 50 items for symptoms of depression, anxiety, phobic states and somatic disturbances. We constructed scores of all PSE symptoms of these types, counting 1 for each symptom of moderate intensity, and 2 for each of severe intensity. We defined time 0 as when the subject reported symptoms at their worst. At the first interview we assessed symptoms at time 0 and at time 1. The symptom score at time 2 was the outcome variable.

### Predictive factors

We concentrated on five sets of predictive factors, as follows.

*Plans and their outcome.* Plans were assessed at time 1, partly from a schedule of activities in which participants were asked what they were doing in nine areas: occupation, domestic life, relationship(s), leisure, religion, self, children, finance, other; and asked which of these was the most important to them and whether other areas interfered with it. We then asked people to talk in an unstructured way about how they saw their next year, describing specific goals and plans, what obstacles they foresaw, and what problems they would have to solve. At time 2 we reminded them of each plan they had mentioned, and asked them to say what had happened in it, including conflicts and setbacks. The parts of the first and second interviews that concerned plans were tape recorded. From these recordings, summaries of plans were made for time 1 and time 2. Plans at time 1 were rated independently by each of us on a six-point scale of explicitness; ranging from 'steps being already taken' (coded 6) to 'no plans, hopes or fears' (coded 1). On each plan reported at time 1, we each independently rated whether the outcome at time 2 had matched aspirations expressed at time 1, or whether it had not worked out – a mismatch.

Inter-rater reliability on explicitness, and on number of matches and mismatches was 0.68 or better. The ratings of the one of us who was blind to the subject's diagnosis were used in analyses.

*Life events and non-health difficulties.* We constructed a shortened version of Brown & Harris's (1978) Life Events and Difficulties Schedule asking during the first interview about events and difficulties occurring up to 38 weeks before time 0, when symptoms were at a maximum, and at the second interview for events and difficulties occurring between then and the second interview. Difficulties had to have lasted for at least four weeks, and we excluded any concerned with the participant's own psychiatric or physical health. Also, only events and difficulties rated as independent of the participant were considered. Our version of the schedule was based on Brugha *et al.*'s (1985) list of the 12 categories of life events most important in long-term threat. All events and difficulties were rated independently for long-term threat by each of us, using Brown & Harris's methods, and we counted those with moderate or marked threat. Inter-rater reliability was 89% for events, and 92% for difficulties. Discrepancies of rating between us on any event or difficulty (e.g. between moderate and low threat) were presented to Tirril Harris and the Bedford College team, and in such cases their ratings were used. The measures we used as predictor variables were number of severe events and number of major non-health difficulties at time 1.

*Social support.* All measures were those taken at time 1. Brown & Harris's measures of social support were used for marital relationships, for one close friendship and one close family member. In addition, we measured contacts with professional and paraprofessional resource people.

*Coping.* We augmented Parker & Brown's (1982) scale of six dimensions of coping behaviour by including three others, namely eating, watching TV, and doing something to take the mind off a problem. We asked separately about attempts to cope by solving the problem that had occurred, and coping with emotions, using at each interview a specific example of an event or difficulty that the participant had found distressing before that interview. Our measure was whether at time 1 each person used more problem-solving or more emotion-focused coping strategies.

*Attribution.* We used scales derived from Brewin (1986). At time 1 we asked participants to choose between two responses on internality of moral judgement (my responsibility – not my responsibility), internality as to social comparison (this would happen only to me – same would happen to others), stability (things like this always – never happen), and globality (things went wrong in every area of life – in just this one area); the first option in each set of parentheses scores high. We asked participants to apply these response options to the event or difficulty that had preceded their onset of symptoms which had been the most upsetting to them, and a score was made by summing responses to the four items.

### Results

In this report we give three kinds of result. A fuller account is given by Perring (1987).

Firstly, for patients whose plans discussed at time 1 were all working out at time 2, we found that 13 had low PSE scores (below the median for all patients), whereas five had high PSE scores (above the median). By contrast, of those with at least one plan that was not working out at time 2, five had low and 12 high PSE scores. We excluded plans involving any aspect of psychiatric or physical health. This effect on PSE scores of a plan not working out was significant ( $\chi^2 = 6.42$ , d.f.1,  $P < 0.05$ , approaching 0.01). There was also an association between number of plans at time 1 and number of mismatches at time 2 ( $r = 0.33$ , not quite significant at the 5% level) but this indicates, rather obviously perhaps, that the more plans a person starts, the more likely it is that some will go wrong.

Table 1  
Correlation coefficients ( $r$ ) of predictor variables measured at time 1 with scores of PSE symptoms at time 1 and time 2

Predictor variable	With symptoms at time 1	With symptoms at time 2
No. of plans	-0.25	-0.23
Plan explicitness	-0.24	-0.14
No. of severe events	0.24	0.21
No. of major non-health difficulties	0.42**	0.35*
Social support		
all close others	-0.31	-0.30
marital	-0.30	-0.14
resource others	-0.27	-0.14
Coping		
use of problem-solving	0.17	-0.12
use of emotion-focused	0.14	-0.02
Attribution	0.25	0.50***

\* $P < 0.05$ ; \*\* $P < 0.01$ ; \*\*\* $P < 0.001$ , two-tailed, d.f.33.

Secondly, we performed correlations ( $r$ ) between all predictor variables measured at time 1 and symptom scores measured at time 1 and time 2. These are given in Table 1, which shows that there was a non-significant association between the number of plans at time 1 and symptoms at time 1, indicating perhaps that more distress made it harder to make plans. The explicitness of plans at time 1 had non-significant correlations with symptom scores at time 1 and at time 2: less explicit plans were weakly associated with higher symptom scores. There were suggestions of associations between number of severe life events before time 0 and symptom scores at time 1 and time 2 but these were not significant, and when the Bedford College measure of caseness of depression was used as the outcome variable (with a three-point scale of non-case, borderline and case) the association was less strong. Major non-health difficulties at time 1 did have a significant association with symptom scores at time 2. There was a non-significant trend in the direction of more social support predicting fewer symptoms. Type of coping strategy at time 1 had no effect on symptom scores at either time 1 or time 2. The highest correlation in Table 1 was between attribution in relation to the most

distressing event preceding time 0, and symptom score at time 2 – those who made internal, stable and global attributions at time 1 were significantly more likely to have higher symptoms scores at time 2.

Thirdly, we performed a regression analysis on symptom scores at time 2, entering into the equation the three most important control factors, namely symptom score at time 0, time since symptoms were at their maximum (i.e. time 2 – time 0) and social class (using the scale of Goldthorpe & Hope, 1974). These three variables together accounted for 20% of the variance. Other variables were then entered into the equation in stepwise fashion. Attribution scores and number of major non-health difficulties at time 1 were both significantly associated with symptoms at time 2 ( $P$  approximately 0.01 and 0.02 respectively). With this procedure, other variables (i.e. outcome and explicitness of plans, severe events, social support, and coping strategy) were not significant at the 5% level. Nor indeed was duration of psychological treatment, which we also entered into the equation.

## Discussion

We have presented our findings in three parts. The first was about plans. Among factors implicated in whether symptoms became chronic was whether plans discussed soon after the breakdown were working out or not. Having at least one plan that had not worked out was significantly associated with symptoms remaining chronic at time 2.

The second aspect of our findings is shown in Table 1 – raw associations of predictor variables measured at time 1 with symptom scores at time 1 and time 2. The third aspect was a regression analysis with a specified order of entering variables. We present the regression analysis not with its conventional purpose of showing how much of the variance is contributed by each variable, but to check that when the most obvious general factors (i.e. symptom scores at time 0, duration of symptoms and social class) are controlled for, the largest associations in Table 1 remain.

Attribution, made shortly after symptoms had reached their maximum, was the most significant factor affecting chronicity. People who at time 1 made internal, stable and global judgements about the event they had found most distressing in provoking their symptoms, had more symptoms at time 2 than those who had made external, unstable and local attributions. The second most significant effect was of major non-health difficulties.

With our relatively small number of subjects, claims for significance of only a few factors can reasonably be made, and the regression procedure we have chosen is conservative in regard to some factors. It can be argued that since vulnerability factors, life events and difficulties largely explain the effect of social class on incidence of depression

(Brown & Harris, 1978), a regression analysis in which social class is controlled for may be biased against finding significant effects of social support, life events, or difficulties here. Table 1 indicates that there may indeed be a real association of both life events and lack of social support with symptoms scores at time 2. We believe, however, that it would require larger samples to establish whether these associations were significant.

Although the rate of recruiting into the study was low, this was because we depended on intermediaries to ask for participation. We cannot rule out the possibility that the clinicians who referred people to us preferentially selected those with higher motivation or self-confidence, although we believe the low initial response rate had more to do with the enthusiasm of referring clinicians for research and this would not have affected our sample so systematically. The results we describe, however, are of a longitudinal kind and the follow-up rate was very high, with all but one subject being interviewed at time 2. Hence there are good grounds for believing that factors which contribute generally to chronicity include: plans that do not work out; internal, stable and global attributions towards events seen as precipitating symptoms; and major difficulties.

Our study can usefully be compared with that of Brown *et al* (1988). They found, in a community sample of 48 women whose depression had lasted a year or more, that two kinds of happening affected recovery. One kind was a reduction in an ongoing difficulty, and the other was a fresh start of some kind, an event or decision that gave the woman some cause for hope that the future might become better. Whereas Brown *et al*'s study of recovery focused on people who had chronic symptoms which then improved, ours focused on factors that made symptoms of recent onset become chronic. Our results and those of Brown *et al* are thus complementary. In both studies chronic difficulties contributed significantly – we found that their presence was predictive of symptom scores remaining high after onset, and Brown *et al* reported that recovery was associated with reduction in the number or severity of difficulties. Similarly, both we and Brown *et al* found that new plans were important. We found that symptoms were more likely to become chronic if at least one plan conceived by time 1 had not worked out by time 2. Brown *et al* found that fresh starts were associated with recovery. In both studies, there were suggestions that here, as in the aetiology of onset, social support is important. We found a non-significant indication that lack of social support was important in maintaining symptoms at a high level. Brown *et al* found that the presence of support

was significantly associated with shorter durations of chronic depressive symptoms.

The finding of ours which has no equivalent in Brown *et al*'s (1988) study concerns attribution. Attributional style, although much studied in quasi-experimental studies of mood deterioration, has not been shown to predict onset of clinically significant episodes of depression (see, for example, Brewin, 1985). It is therefore of all the more interest that a strong association of internal, global, and stable attributions about a distressing prior event or difficulty was associated with continuingly high levels of symptoms.

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