Optimum number of sessions for depression and anxiety

Authors Frances Forde, BA, RMN, is community psychiatric nurse, Bellshill focused intervention team, NHS Lanarkshire; Marie Frame, BA, RMN, is community psychiatric nurse, Clydesdale focused intervention team, NHS Lanarkshire; Pauline Hanlon, BNspq, PGD (management), RMN, RMNH, is clinical governance coordinator, Motherwell/Clydesdale clinical management team, NHS Lanarkshire; Gus MacLean, RMN is community psychiatric nurse, Motherwell focused intervention team, NHS Lanarkshire; Des Nolan, RMN, RGN, BA, is community psychiatric nurse, Wishaw focused intervention team, NHS Lanarkshire; Polash Shajahan, MBChB, MPhil, MRCGP/VK, MRCPsych, is consultant psychiatrist, Motherwell/Clydesdale District, NHS Lanarkshire; Elizabeth Troy, RMN, is deputy charge nurse, Airbles Road day hospital, NHS Lanarkshire.


Aim To examine the relationship between the number of psychological treatment sessions completed by patients (1–5 sessions, 6–8 sessions, >8 sessions) and the change in self-rated depressive and anxiety symptoms using the Hospital Anxiety and Depression Scale (HADS).

Method Recording demographic characteristics and various clinical outcome measures for all referrals to the service and examining the relationship between changes in self-reported anxiety and depression symptoms.

Results For depression, the study shows that having 6–8 sessions offers more benefit than 1–5 sessions. Having more than eight sessions does not confer any additional benefit. Indeed, there is little difference between 1–5 sessions and more than eight sessions for depression. For anxiety, symptoms appear to continue to improve with increasing numbers of treatment sessions.

Conclusion Beyond eight treatment sessions, there appears to be no additional improvement. This is not the case for anxiety, where continuing treatment sessions appear to reduce symptoms.

Up to 50 per cent of all individuals presenting to their GP have symptoms of depression or anxiety (Freeling and Tylee, 1992). Most of these individuals are managed in general practice and it is estimated that fewer than 10 per cent are referred to secondary mental health services (Royal College of General Practitioners, 1993). The recent National Institute for Health and Clinical Excellence guidelines (NICE, 2004) recommend short-term psychological treatment for mild and moderate depression as a key priority for implementation: ‘Psychological treatment specifically focused on depression such as problem-solving therapy, brief cognitive behavioural therapy and counselling of 6–8 sessions over 10–12 weeks should be considered.’

Established practice in our local secondary mental health services, in particular the focused intervention teams, included managing patients with depression and anxiety disorders using focused time-limited psychological interventions. These combined elements of the therapies in the NICE guidelines.

This study considers the clinical outcome measures from the focused intervention teams in our locality and the relationship with NICE guidelines on the issue of 6–8 sessions being adequate therapy for these disorders.

Lanarkshire mental health services are split into sections. The Motherwell/Clydesdale district, with a total population of approximately 200,000, is one of three districts in Lanarkshire. Mental health services are organised around the ‘resource network’ model (Lanarkshire Health Board, 1999) and three such resource networks within the district provide the hub for all secondary mental health referrals. Weekly referral and allocation meetings are held at each resource network. Referrals suggesting that an individual might be suitable for focused psychological intervention for her or his mental health problem (usually depressive and anxiety-related disorders) are taken up by the focused intervention teams and assessed for treatment suitability.

Methods Since 2003 the focused intervention teams in the Motherwell/Clydesdale district have been recording demographic characteristics and various clinical outcome measures for all referrals to their service. In this study the relationship between changes in self-reported anxiety and depression symptoms were examined using the Hospital Anxiety and Depression Scale (HADS) and number of community psychiatric nurse (CPN) treatment sessions.
The HADS was principally designed for detecting anxiety and depressive states in medical outpatients (Zigmond and Snaith, 1983). It has been employed in many medical and psychiatric settings in numerous languages and has been shown to have high test-retest reliability (Spinhoven et al, 1997).

There are reservations about the use of the HADS in such a ubiquitous manner but its use was decided upon due to patient acceptability and ease of administration by a large number of clinicians (24 CPNs were involved in collecting and entering data over a 1–2 year time period). The HADS has been used by others (White et al, 1999) for similar reasons.

Furthermore, there is evidence to support that HADS, as a screening instrument for detecting cases, is comparable with other self-rating schedules such as the General Health Questionnaire (Lewis and Wessely, 1990).

The HADS provides subscale scores for anxiety and depressive symptoms. The change in HADS from time of assessment to end of treatment was examined in relation to the number of one-to-one CPN treatment sessions.

The clinical problems were identified on a descriptive rather than an operational basis. The problems were then classified into the main or primary problem and secondary or tertiary problems. For example, anxiety, panic, depression, postnatal depression and stress.

We considered depression and anxiety separately. Although the conditions overlap in symptomatology, from a treatment point of view, approaches may differ. For example, there may be emphasis on depression management sessions rather than anxiety management sessions and vice versa.

During the period of data collection, usual clinical practice did not change. The content of anxiety and depression management sessions varies with practitioner but a number of common features are identifiable. From a no means exhaustive range, these include cognitive and behavioural change, problem-solving, education, advice on interpersonal skills, general support, medication monitoring and health promotion. These features overlap with those

![FIG 1. PATHWAY OF REFERRALS ENTERED, ASSESSED AND COMPLETED TREATMENT](image)

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![TABLE 1. DURATION OF DATA COLLECTION AND COMPLETED OUTCOMES BY INDIVIDUAL FOCUSED INTERVENTION TEAMS](table)

<table>
<thead>
<tr>
<th>TEAM</th>
<th>START OF DATA</th>
<th>END OF DATA</th>
<th>NUMBER OF DAYS</th>
<th>NUMBER OF RECORDED REFERRALS</th>
<th>NUMBER OF ASSESSMENTS</th>
<th>NUMBER OF FINAL OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>07/05/03</td>
<td>10/03/05</td>
<td>673</td>
<td>777</td>
<td>341</td>
<td>66</td>
</tr>
<tr>
<td>2</td>
<td>17/01/03</td>
<td>09/12/04</td>
<td>692</td>
<td>384</td>
<td>127</td>
<td>49</td>
</tr>
<tr>
<td>3</td>
<td>17/01/03</td>
<td>26/10/04</td>
<td>648</td>
<td>284</td>
<td>89</td>
<td>25</td>
</tr>
<tr>
<td>4</td>
<td>15/05/03</td>
<td>02/11/04</td>
<td>537</td>
<td>407</td>
<td>221</td>
<td>69</td>
</tr>
<tr>
<td>5</td>
<td>08/11/02</td>
<td>07/03/05</td>
<td>850</td>
<td>862</td>
<td>477</td>
<td>109</td>
</tr>
</tbody>
</table>

|               | Total=2,714   | Total=1,255  | Total=318                  |

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The majority of CPNs used therapy material derived from *The Mental Health Handbook* (Powell, 1992). Based upon clinical experience, the team predicted that more than eight treatment sessions would not confer any additional benefit for either depressed or anxious patients.

Analysis of variance (ANOVA) was used to examine the difference between the three groups (1–5 sessions, 6–8 sessions, eight or more sessions) and initial symptom severity, duration, and symptom reduction.

Statistical tests were used to examine the difference between groups and the number of individuals on medication, sex distribution and referral urgency (soon or routine).

A scattergraph was plotted for predicted number of sessions at assessment against the number of completed sessions.

Results

Fig 1 (p37) shows the pathway and number of patient referrals recorded. Of the 2,714 referrals recorded, 1,459 (54 per cent) did not attend for assessment so 1,255 assessments (46 per cent of the total referrals) were subsequently recorded. Of these 1,255 initial assessments, 785 (63 per cent) were not taken on for treatment sessions. Of the 470 who were taken on, final scores were available in 318 (68 per cent). The analysis was based on those who were identified as experiencing a primary problem of depression (n=142) or anxiety (n=113).

Table 1 shows the duration of data collection and completed outcomes by individual focused intervention teams. The collection intervals vary, ranging from 537 to 850 days. There was also variation in the proportion of final outcomes to assessments performed, ranging from 19 per cent (team 1) to 38 per cent (team 2).

Table 2 shows demographic, referral and clinical characteristics for patients with depression. There were no statistically significant differences among the three groups in terms of sex distribution, age, urgency of referral, duration of illness episode, severity of initial symptoms or likelihood of being on antidepressants at discharge.

Note that for patients who were identified as primarily suffering from depression, postnatal depression was identified in 40 patients (28 per cent) and anxiety was identified as the second problem in 43 (30 per cent).

Fig 2 shows the mean change in HADS scores for depression. A greater reduction in self-rated anxiety and depressive symptoms (HADS A and HADS D) for 6–8 sessions compared with 1–5 sessions was seen. These differences are statistically significant for HADS A (t=3.0, df=139; p<0.003) and represent a trend for HADS D (t=1.8, df=139; p=0.07). The group that received eight or more sessions did not improve as much as the group that received 6–8 sessions.

Table 3 (p40) shows demographic, referral and clinical characteristics for patients with depression. There were no statistically significant differences between the three groups in terms of sex distribution, age, urgency of referral or duration of illness episode.

However, there were fewer patients taking antidepressant medication at the time of discharge from treatment in the group that had 6–8 sessions.

### References


Royal College of General Practitioners (1993) Shared Care of Patients with Mental Health Problems. (Occasional paper no 60) London: RCGP.


(χ²=7.6, df=2; p=0.02) and initial anxiety severity was greater for those in the group that received eight or more sessions (F(2,169) =58.7; p<0.0001).

Note that for patients who were identified as primarily suffering from anxiety, depression was identified as the second problem in 41 (36 per cent).

Fig 3 shows greater reduction in self-reported anxiety (HADS A) with increasing number of sessions completed, F(2,112) = 4.7; p=0.0011. who were less likely to be on antidepressants were targeted for more sessions. In practice this was not the case, which suggests other factors may be contributing to the selection process.

One consideration is personality factors. Are therapists targeting more treatment sessions for those whose personality traits predict a requirement for prolonged treatment? Ability or willingness to engage in psychological therapy should also be considered but are not easy to measure.

### TABLE 2. DEMOGRAPHIC, REFERRAL AND CLINICAL CHARACTERISTICS FOR PATIENTS PRIMARILY SUFFERING FROM DEPRESSION

<table>
<thead>
<tr>
<th>GROUP</th>
<th>FEMALE : MALE RATIO</th>
<th>MEAN AGE IN YEARS (SD)</th>
<th>&quot;SOON&quot;: ROUTINE (% SOON)</th>
<th>MEDIAN-DURATION PROBLEM, WEEKS (SD)</th>
<th>ON ANTI-DEPRESSANTS AT DISCHARGE</th>
<th>INITIAL HADS A (SD)</th>
<th>INITIAL HADS D (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–5 sessions</td>
<td>42:13</td>
<td>37 (12)</td>
<td>22:33 (40%)</td>
<td>32 (342)</td>
<td>89%</td>
<td>13.9 (4.1)</td>
<td>13.6 (3.9)</td>
</tr>
<tr>
<td>6–8 sessions</td>
<td>34:14</td>
<td>36 (12)</td>
<td>16:32 (33%)</td>
<td>40 (152)</td>
<td>79%</td>
<td>14.5 (3.9)</td>
<td>12.8 (3.7)</td>
</tr>
<tr>
<td>&gt;8 sessions</td>
<td>32:7</td>
<td>38 (12)</td>
<td>12:27 (31%)</td>
<td>32 (76)</td>
<td>83%</td>
<td>14.5 (3.9)</td>
<td>13.1 (4.6)</td>
</tr>
</tbody>
</table>

SD = standard deviation

* urgency of referral (local guidelines: 'soon' = to be seen within 10 days, 'routine' = within 28 days)

Self-rated depressive symptoms (HADS D) improved further with more than eight sessions compared with 1–5 sessions or for 6–8 sessions F(2,112) =5.7; p<0.005.

**Discussion**

**Depression**
The NICE guidelines recommend that 6–8 therapy sessions should be offered for individuals with mild and moderate depression.

Our study is consistent with this and shows that, at least in the short-term, 6–8 sessions offers more benefit than 1–5 sessions. Interestingly, more than eight sessions does not confer any additional benefit over 6–8 sessions. Indeed, there is little difference between 1–5 sessions and more than eight sessions for depression.

The selection of patients for differing numbers of completed sessions is of importance. It might be expected that patients who had more severe or longer duration of depressive symptoms or those who were less likely to be on antidepressants were targeted for more sessions. In practice this was not the case, which suggests other factors may be contributing to the selection process.

One consideration is personality factors. Are therapists targeting more treatment sessions for those whose personality traits predict a requirement for prolonged treatment? Ability or willingness to engage in psychological therapy should also be considered but are not easy to measure.

Furthermore, the willingness of the therapist to engage with or continue prolonged treatment sessions should be considered.

In this study nurses predicted quite accurately at the onset of therapy the number of sessions that will be completed.

However, the mechanism for this prediction is based more on clinical intuition and experience and is also difficult to measure.

There remains a possibility that those and/or other unknown factors, rather than random selection, were important reasons for the number of sessions completed.

**Anxiety**

Anxiety appears to continue to improve with greater numbers of treatment sessions. This phenomenon requires further investigation.

For example, what is the maximum number of sessions that can be given before there is a tail-off in response? Therapist time and resource issues are
important considerations if prolonged treatment is indeed beneficial for anxiety. The mean reduction in depressive subscale symptoms was greater for those individuals who had completed more than eight sessions compared with 1–5 sessions or 6–8 sessions.

One potential explanation is that depressive symptoms within anxiety disorder can only be addressed and reduced after anxiety reduction has taken place, for example, in patients with agoraphobia where desensitisation work is required beforehand.

The mean initial HADS score (anxiety and depression subscales) for those receiving more than eight sessions was higher than for the groups receiving 1–5 sessions or 6–8 sessions. This suggests that more sessions were targeted accurately for those with more severe symptoms.

The group receiving 6–8 sessions were less likely to be on antidepressant medication at discharge (58 per cent) compared with other groups (81 per cent and 93 per cent). Again, the interpretation of this is complex.

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It is possible that those taken on for 6–8 sessions were referred because of their preference for psychological treatment or their reluctance to take medication. Perhaps the group receiving 1–5 sessions required fewer sessions because they were on antidepressants.

The group receiving more than eight sessions may have had more opportunity for their therapist to recommend medication by the time their treatment was completed.

**Conclusion**

Beyond eight treatment sessions there appears to be no additional improvement for depression. This is not the case for anxiety, where continuing treatment sessions appear to be associated with further symptom reduction.

There are a few reasons to be cautious with these findings.

Just over half of all individuals did not attend following referral. Of those that attended for an assessment (n=1,255), the majority – 63 per cent (n=785) – were considered unsuitable for focused intervention.

Final HADS scores were unavailable in 12 per cent (n=152). One-quarter managed to complete final scores (n=318).

The conclusions are based on a more selective population with anxiety and depression, which represents 20 per cent (n=255) of all those who were assessed.

What happened to the rest of these individuals and their longer-term outcomes are important questions.

Additionally, the final scores reflect short-term outcome only.

We have shown that routine collection of outcome data by a number of health teams is feasible on a reasonably large scale over a 1–2 year period.

The benefits of this are that further study on the medium to longer-term outcome of individuals who have completed these treatments, re-referrals and non-attenders will be possible. ■

### TABLE 3. DEMOGRAPHIC REFERRAL AND CLINICAL CHARACTERISTICS FOR PATIENTS PRIMARILY SUFFERING FROM ANXIETY

<table>
<thead>
<tr>
<th>GROUP</th>
<th>F:M</th>
<th>MEAN AGE YEARS (SD)</th>
<th>SOON: ROUTINE (% SOON)</th>
<th>MEDIAN DURATION PROBLEM, WEEKS (SD)</th>
<th>ON ANTIDEPRESSANTS AT DISCHARGE</th>
<th>INITIAL HADS A (SD)</th>
<th>INITIAL HADS D (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–5 sessions</td>
<td>43:17</td>
<td>39 (12)</td>
<td>22:38 (37%)</td>
<td>52 (115)</td>
<td>81%</td>
<td>14.7 (3.3)</td>
<td>10.3 (4.5)</td>
</tr>
<tr>
<td>6–8 sessions</td>
<td>26:11</td>
<td>40 (13)</td>
<td>10:27 (27%)</td>
<td>52 (115)</td>
<td>58%</td>
<td>15.8 (2.9)</td>
<td>10.6 (4.0)</td>
</tr>
<tr>
<td>&gt;8 sessions</td>
<td>21:5</td>
<td>40 (10)</td>
<td>7:9 (44%)</td>
<td>73 (151)</td>
<td>93%</td>
<td>17.0 (2.5)</td>
<td>12.6 (4.4)</td>
</tr>
</tbody>
</table>

Statistical significance between groups

<table>
<thead>
<tr>
<th></th>
<th>F:M</th>
<th>MEAN AGE YEARS (SD)</th>
<th>SOON: ROUTINE (% SOON)</th>
<th>MEDIAN DURATION PROBLEM, WEEKS (SD)</th>
<th>ON ANTIDEPRESSANTS AT DISCHARGE</th>
<th>INITIAL HADS A (SD)</th>
<th>INITIAL HADS D (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>yes(^a)</td>
<td>yes(^b)</td>
<td>no</td>
</tr>
</tbody>
</table>

**SD=standard deviation**

\(^a\): \(x^2=7.6, df=2; p=0.02\)

\(^b\): \(F_{(2,169)}=58.7; p<0.0001\)
REFERENCES

Reference name. (1999) ‘Reference title’ of the source document follows the authors name. Publishers name follows in ‘Ref. body’ text style. Note all right hand side-text columns containing reference information always have the copy range left.

For Journal articles
Reference name. (1999) individual references for each article in the Clinical section is twelve.