Psychogeriatric reactivation in a psychiatric-skilled nursing home:

A clinical-empirical exploration

1. Introduction

The chronic and diverse cognitive function disorders of psychogeriatric patients often occur in conjunction with mood and behavioural disorders (functional-psychiatric pathology), social problems and somatic comorbidity in addition to functional disability (Rubin and Kinscherf, 1989; Teri et al., 1990; Bozzola et al., 1992; Chatterjee et al., 1992; Ballard et al., 1995). This complex co-pathology suggests that there is a need for specific intervention programmes (Colerick and George, 1986; Steele et al., 1990; McNaughton et al., 1995). The interventions aim at (re)gaining or stabilizing the ability to function autonomously and at enhancing the patients’ quality of life (Mortimer et al., 1992; Gray and Fenn, 1993).

It is very important that the outcome of such interventions are measured (Lyons et al., 1997; Bakker and Das, 1996) and that the data are used to identify those patients who benefit most (Rubenstein et al., 1964; Colerick and George, 1986; Narain et al., 1988).

The objective of this study was to identify prognostic characteristics for the probability of discharge of psychogeriatric patients with functional-psychiatric pathology, in order to optimize patient selection for the reactivation programme.

2. Material and methods

2.1 Patients

Reactivation was tailored to psychogeriatric patients primarily suffering from (very) mild to moderate cognitive function disorders. These disorders fell into the following DSM-IV categories: dementia (not otherwise specified, nos), amnestic disorder (nos), cognitive disorder (nos), delirium (nos), and alcohol-induced persisting dementia/amnestic disorder. In addition, all patients exhibited functional-psychiatric pathology and loss of the ability to function autonomously. The patients were referred to the programme by ambulant mental health care services. The inclusion criteria for this study were that psychogeriatric disorders were accompanied by functional-psychiatric pathology and that the patients should be aged 65 and above. The exclusion criteria were: severe functional-psychiatric pathology (e.g. acute psychosis), severe cognitive function disorders and severe (life-threatening) somatic comorbidity. The regular independent referral committee for admission to nursing homes decided whether the reactivation programme was suitable for the individual patient.

2.2 Psychogeriatric reactivation

Psychogeriatric reactivation spans the fields of psychiatry and ‘nursing home’ medicine. The multidisciplinary programme (duration 3-6 months, in a 15-bed unit) comprised integrated interventions involving therapy, nursing and welfare.
Therapy (i.e. psychotherapy, expression therapy and somatotherapy) was predominantly directed towards improving clinical psychiatric symptoms as well as functional disabilities and to providing training in (adapted) life skills. Specific tools were developed to deal with refractory cognitive dysfunctions and personality disorders. Furthermore, the patients’ social and somatic condition was optimized. The therapeutic team consisted of a psychogeriatrician, a clinical psychologist, music-/psychomotor-/creative therapists, a physiotherapist, an occupational therapist, a speech therapist and a dietician. The nursing team utilized supportive strategies and techniques (e.g. rehabilitation, cognitive training, behavioural therapy techniques and a medication programme) with the goal of stimulating and training patients to undertake self-care. Welfare activities (provided by a welfare worker, clergyman, social worker and volunteers) focused on social activation and social participation, with the aim of conserving the patients’ (re)gained ability to function autonomously. Members of staff from all disciplines were trained to conduct the intensive and integrated reactivation programme.

The reactivation process was characterized by three phases: (1) observation and control of dominant disorders, particularly disorders detrimental to vital functions; (2) (re)gaining or stabilizing the psychosocial abilities required for autonomous functioning and the enhancement of well-being and finally (3) preparing for and working through the patients’ discharge.

2.3 Design

This was a retrospective, clinical, empirical study. Of the patients who were admitted to the psychogeriatric reactivation programme section of the ‘DrieMaasStede’, psychiatric-skilled nursing home at Schiedam, the Netherlands from 1989 to 1995, 102 met the inclusion/exclusion criteria.

2.4 Assessments

At baseline, details of the patients’ gender, age, marital status and country of origin were recorded (SIG-information, 1995). At the same time, the patients’ clinical status was assessed in terms of their prevailing functional and diagnostic characteristics (Mortimer et al., 1992; Lyons et al., 1997). The functional characteristics consisted of the Global Deterioration Scale (GDS, range 1-7), the Help Index (HI, range 0-12) and the Activities of Daily Life score (ADL, range 0-5) (Reisberg, 1982; Juva et al., 1994; SIG-information, 1995). The diagnostic characteristics were derived by having two experts complete an Functional Assessment List (FAL) comprising five domains (cognitive function disorder, functional-psychiatric pathology, caregiver system, traumatic experiences, and somatic comorbidity) (Bakker, 1997).
Finally, the duration of the reactivation programme and the date of discharge was recorded for each patient, the latter being the criterion that psychogeriatric reactivation had been beneficial to the patient in question. Discharge of the patient to a residential home for the elderly was authorized by the regular independent referral committee.

2.5 Procedure

Both the general and the functional data (HI, ADL) were routinely recorded (SIG-information, 1995). The diagnostic data were collected by a psychogeriatrician and a clinical psychologist, who independently completed the standardized FAL and GDS protocols after thorough examination of the patients’ medical record (Severijns et al., 1990). The decision procedure was as follows: in the case of disagreement, the two experts attempted to reach consensus through discussion. If consensus could not be reached, the ‘interest’ variable was coded as missing.

2.6 Statistical analyses

Data were analyzed using the SPSS programme for Windows. The outcome variable was dichotomized (coded 1 for discharged patients or 0 for non-discharged patients). The patients’ prognostic characteristics were identified by performing separate logistic regression analyses for each individual variable. Due to the sample size (N=102) and the exploratory nature of the study, variables were not entered simultaneously into the logistic model. The models were adjusted for gender, age and duration of the reactivation programme, to facilitate estimation of their prognostic value.

3. Results

Of the 102 patients, 52% (N=53) were discharged, 22% were transferred internally and 26% died during the reactivation period. The mean duration of treatment was 126 days (range 70-410 days). Of the discharged patients, 70% were transferred to a residential home for the elderly (either assisted-living or independent-living), 26% returned home and 4% went elsewhere.

3.1 General characteristics

In respect of gender and age, the patient sample is similar to the distribution found in Dutch nursing homes (SIG-information, 1995). No prognostic differences were identified for gender, age, marital status, country of origin and treatment duration.
3.2 Functional characteristics

The patients’ average score on GDS was 4.3 (SD=1.1), for HI and ADL 4.1 (SD=2.9) and 2.7 (SD=1.7), respectively.

Patients exhibiting a relatively low level of cognitive deterioration (GDS) had a high probability of discharge. Similarly, patients with a high level of self-care (HI, ADL) also had a greater chance of being discharged (table 1).

3.3 Diagnostic characteristics

The prognostic characteristics for discharge were identified, within four distinct domains. With respect to the domain of cognitive function disorder, patients with at least one registered cognitive dysfunction (‘cognitive syndrome’) had a low, though not significant, probability of being discharged. Of all the specific diagnostic classifications only Delirium (nos) showed a significant negative prognostic value (table 1).

In the domain of functional-psychiatric pathology, patients with at least one emotional disorder had a decreased probability of discharge. The prognosis for patients with the characteristics of a paranoid personality disorder were highly unfavourable. In contrast, patients with a cooperative coping style had a discernibly better prognosis than submissive patients.

An inadequate caregiver system (outside the nursing home), characterized as having no children and/or having partner-relational problems, enhanced the probability of being discharged.

Of the somatic comorbidity, vitamin B (B1, B6 and B12 together) deficiency increased the probability of being discharged, in contrast to other somatic variables. Parkinsons’ disease and cerebrovascular accident were, unexpectedly, not of prognostic value (table 1).

4. Discussion

A literature search using the key words ‘clinical-geriatric’ and ‘geronto-psychiatric’ (treatment programmes) yielded only a limited number of empirical studies. These revealed that 34-62% of psychogeriatric patients are successfully discharged, and that 13-32% died during the programme (van Nieuwkerk, 1984; Liem et al., 1986; Narain et al., 1988; Koenig et al., 1992; Albronda et al., 1996). The results of our study are within the limits of these findings. Our patients were relatively old (mean age = 80.6) and had relatively unfavourable scores for functional characteristics. This indicates that they were referred for admission at a comparatively late stage (Narain et al., 1988; Teri et al., 1988; Eisdorfer et al., 1992; Muskens et al., 1992; Juva et al., 1994).
Tabel 1 Prognostic power of functional and diagnostic characteristics for discharge of psycho-geriatric reactivation (adjusted for gender, age, duration of programme).

<table>
<thead>
<tr>
<th>Functional and diagnostic characteristics</th>
<th>N¹</th>
<th>OR</th>
<th>p</th>
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</thead>
<tbody>
<tr>
<td><strong>Functional characteristics</strong></td>
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<td></td>
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<tr>
<td>Global Deterioration Scale (1-7)</td>
<td>102</td>
<td>2.63</td>
<td>0.00</td>
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<tr>
<td>Help index (0-12)</td>
<td>102</td>
<td>1.23</td>
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<td>ADL score (0-5)</td>
<td>102</td>
<td>1.39</td>
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<td></td>
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<tr>
<td>Delirium</td>
<td>17</td>
<td>0.10</td>
<td>0.10</td>
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<tr>
<td>‘Cognitive syndrome’ ≥1</td>
<td>93</td>
<td>0.13</td>
<td>0.06</td>
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<tr>
<td>Emotion disorder ≥1</td>
<td>90</td>
<td>0.23</td>
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<td>Depression (mixed) ≥1</td>
<td>59</td>
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<td>Somatoform disorder ≥1</td>
<td>22</td>
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<td>Paranoid personality</td>
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<td>0.14</td>
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<tr>
<td>Cooperative coping style</td>
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<td>Submissive coping style</td>
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<td>Somatic co-morbidity</td>
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<tr>
<td>Vitamin B deficiencies</td>
<td>53</td>
<td>2.95</td>
<td>0.02</td>
</tr>
<tr>
<td>Severe wound</td>
<td>12</td>
<td>0.14</td>
<td>0.02</td>
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<tr>
<td>Urogenital system ≥1</td>
<td>57</td>
<td>0.19</td>
<td>0.001</td>
</tr>
<tr>
<td>Cardiovascular/pulmonary system ≥1</td>
<td>69</td>
<td>0.19</td>
<td>0.002</td>
</tr>
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</table>

¹ N = number of patients with the relevant characteristic odds ratio.
[i] i.c. memory, orientation, praxis and language dysfunctions.
2) i.c. agitated depression mixed with anxiety-panic and paranoia.
3) i.c. no children and/or partner-relational problems.
4) i.c. prostate, urogenital and kidney morbidity.
5) i.c. decompensatio cordis, arrhythmias and conduction disturbances, hypertension and pulmonary morbidity.
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Increasing emphasis is being given to the importance of recognizing the non-cognitive pathology of psychogeriatric disorders (Burns et al., 1990; Chatterjee et al., 1992; Teri et al., 1989, 1990; Rubin et al., 1987, 1989; Siegler et al., 1991). In the present study, the following characteristics of functional-psychiatric pathology were of great prognostic importance: a somatoform disorder, and agitated depression mixed with anxiety-panic and paranoia, a paranoid personality and an cooperative or submissive coping style.

An unexpected finding was that patients suffering from partner-relational problems and/or having no children (inadequate caregiver system) have a relatively high probability of being discharged. This could be attributed to the fact that they were treated in good time, which is supported by their relatively favourable self-care profile at admission. In contrast to acute conditions (e.g. myocardial
infarction, cerebrovascular accident, transient ischemic accident, pneumonia), chronic somatic morbidity was of prognostic relevance. This confirms the necessity of focusing on optimizing the patients’ somatic condition.

It is of clinical interest to establish whether the beneficial effects can be attributed to the merits of the intervention programme. A randomized, controlled, parallel group design is therefore required, in which the effects of the intervention programme are compared to the effects of regular medical treatment.

5. Conclusion

Large numbers of psychogeriatric patients suffer from functional-psychiatric pathology, which goes hand in hand with a diminished ability to function autonomously and to maintain quality of life. Accordingly, timely intervention programmes are urgently needed.

The present clinical, empirical study found that the patients’ clinical status at baseline (in terms of prevailing functional and diagnostic characteristics) was of important prognostic value for the probability of discharge from a psychogeriatric reactivation programme. The diagnostic characteristics were associated with the following four domains: cognitive function disorder, functional-psychiatric pathology, caregiver system and somatic comorbidity. The functional prognostic characteristics used in this study were GDS, HI and ADL.

The relatively high percentage of discharged patients in this study indicates that frail, elderly psychogeriatric patients with functional-psychogeriatric pathology can be successfully reactivated. Once data on the effective treatment ingredients are available, they can be adapted for similar programmes in day clinics, outpatient departments and intensive home care schemes. The development of a prognostic factor is a prerequisite for optimizing the assignment of patients to such programmes, as is the analysis of cost-effectiveness. Our group has designed a large-scale prospective study with a randomized, controlled, parallel group design to address these questions. This will then allow an evidence-based selection protocol to be specified.
References