

Monitoring community psychiatric services in Italy: differences between patients who leave care and those who stay in treatment

MAURO PERCUDANI, GIANCARLO BELLONI, AGOSTINO CONTINI and CORRADO BARBUI

Background Continuity of care has been monitored rarely in Italian community mental health centres.

Aims To estimate the long-term probability of leaving care in first-contact patients attending an out-patient service, and to identify patients most likely to drop out.

Method All patients who had a first contact with the community mental health centre of Magenta during a 1-year recruitment period were followed up for 24 months. Patients who failed to return after the last out-patient visit were regarded as 'drop-outs'.

Results During the 1-year recruitment period 330 subjects were at their first contact. The 1-year incidence of first-contact patients was nearly 33 per 10 000 inhabitants. At follow-up, 46% of patients had dropped out. In comparison with patients with psychoses, subjects suffering from neurotic ($P=0.004$) and personality disorders ($P=0.029$) were more likely to drop out.

Conclusions In the Italian system of community psychiatric care nearly half of the patients are no longer in contact after 2 years. Those who stay in treatment are more likely to suffer from psychosis, suggesting a commitment of Italian out-patient facilities to tackling the needs of patients with more severe disorders.

Declaration of interest None.

Monitoring routine clinical practice is intended to produce information on the probability of different outcomes and on variables that may affect outcome (Black, 1999; Salvador-Carulla, 1999). Key issues are the inclusion of all patients in long-term observations and the use of outcome indicators routinely adopted in everyday clinical practice (Harrison & Eaton, 1999; Thornicroft & Tansella, 1999; Barbui *et al*, 2002).

The Italian psychiatric system gives high priority to out-patient care delivered by community mental health centres (CMHCs). Individuals with psychological and psychiatric problems in a specific catchment area are all followed by the CMHC for that area. Continuity of care is considered a basic quality requirement, essential for following patients in their own context of life for a long time (Tansella *et al*, 1995). To date, however, continuity of care has been investigated rarely in Italian CMHCs. Morlino *et al* (1995) explored the probability of leaving care in a university psychiatric out-patient clinic but this did not cover a specified catchment area, which might have influenced the overall drop-out rate (82% at 3 months). The present outcome study followed all patients who had a first contact with a CMHC during a 1-year period for 24 months; the purpose was to estimate the probability of leaving care and to identify subgroups of patients most likely to drop out.

METHOD

Study area

The Magenta Community Psychiatric Service is a public agency that provides psychiatric care to 160 000 residents in a suburban area near Milan. Its catchment area consists of two main sub-areas: the Magenta area (130.76 km² and about 100 000 residents) and the Abbiategrasso area (202.61 km² and about 60 000 residents).

The Magenta Community Psychiatric Service consists of one psychiatric ward in a general hospital, one psychiatric residential rehabilitative centre, two community mental health centres (the Magenta CMHC providing care to the Magenta residents, and the Abbiategrasso CMHC providing care to the Abbiategrasso residents) and two unstaffed apartments. The psychiatric ward in the Magenta general hospital is a 16-bed in-patient unit generally used for acute episodes. This ward offers acute in-patient care, liaison services to other hospital units and a 24-hour emergency service to both the Magenta and the Abbiategrasso residents.

The CMHCs are the operational units in charge of managing all psychiatric services provided to patients from their catchment areas. All but emergency cases are expected to have their first contact with public mental health care in these units. The CMHCs also are charged to act as the psychiatric interface of the network of general practitioners providing primary general care to all residents. The Magenta CMHC catchment area comprises various small towns located in a mainly rural territory. Population density is 772.75 inhabitants per square kilometre. The main economic activities are farming and traditional manufacturing. The CMHC serves 85 809 adult residents (total population is 101 045). Further details of routine clinical work and costs of this facility can be found elsewhere (Percudani *et al*, 1999; Fattore *et al*, 2000).

Study population

The study was carried out at the Magenta CMHC. In 1992 an administrative database was developed to routinely collect service utilisation data (Regione Lombardia Settore Sanità e Igiene, 1992) as part of the computerised psychiatric information system of the local regional health authority. From this database socio-demographic and clinical information was extracted on all patients who had had a first contact with the CMHC from January to December 1994. All these patients were followed for 24 months. Patients were grouped in six ICD-10 (World Health Organization, 1992) diagnostic categories: schizophrenia, schizotypal and delusional disorders (F2 diagnoses); mood disorders (F3 diagnoses); neurotic, stress-related and somatoform disorders (F4 diagnoses); disorders of adult personality and behaviour

(F6 diagnoses); ‘mental retardation’ (F7 diagnoses) (hereafter, learning disability); and other diagnoses (patients not included in F2, F3, F4, F6 or F7).

Outcome

The total number of months of contact with the CMHC during the study period was recorded. Patients who failed to return after the last out-patient visit, even though a new appointment had been established, were regarded as having dropped out. Patients who remained in contact with the out-patient service during the whole study period were considered ‘still followed up’ and patients who discontinued the contact in agreement with the treating psychiatrists were regarded as ‘discharged’.

Statistical analysis

Rates of first-contact patients by diagnosis were calculated by dividing the total number who had had a first contact with the CMHC during the 12-month recruitment period by the resident population. Rates of first-ever-contact patients by diagnosis were calculated by dividing the number of patients with no previous psychiatric contacts with any other mental health facilities who had had a first contact with the CMHC during the 12-month recruitment period by the resident population. Univariate comparisons between patients who dropped out, were ‘discharged by agreement’ and those who stayed in treatment were performed using χ^2 statistics, and a Kaplan–Meier curve estimated the survival probability (continuity of care) over the 24-month follow-up. A Cox regression analysis was carried out to determine the role of independent variables in the probability

of discontinuing contact with the out-patient service. All calculations were done using Stata 4.0 (StataCorp, 1995).

RESULTS

Rates of first-contact and first-ever-contact patients

During the 12-month recruitment period 1145 subjects had at least one contact with the CMHC; of these, 330 were at their first contact (29%). The overall 1-year incidence of first-contact patients was nearly 33 per 10 000 inhabitants; of these, 26 per 10 000 were at their first-ever contact with a psychiatric service (Table 1). Incidence rates were high for patients suffering from neurotic disorders and low for psychosis and learning disability (Table 1).

Characteristics of the 330 first-contact patients

The socio-demographic and clinical characteristics of the sample are presented in Table 2. The majority were female, only one-third were over 50 years of age, half were married and a minority lived alone. Sixty-four had had previous psychiatric contacts and the others were first-ever-contact patients. Neurotic disorders were the most common diagnoses, followed by affective disorder. Patients suffering from psychotic disorders accounted for 7% of the total sample. Nearly half of the patients received no prescription for psychotropic drugs at first contact.

Outcome

After 2 years of follow-up 46% of patients had dropped out, one-third were still

Table 2 Socio-demographic and clinical characteristics of all first-contact patients with the Magenta community psychiatric service over a 12-month period

Variable	n	(%)
Gender		
Female	200	(60.6)
Male	130	(39.3)
Age (years)		
17–30	105	(31.8)
31–50	124	(37.5)
51–70	70	(21.2)
71–88	31	(9.3)
Marital status		
Single	117	(35.4)
Married	167	(50.6)
Separated	12	(3.6)
Widowed	34	(10.3)
Living situation		
Alone	43	(13.0)
Not alone	287	(86.9)
Employment status		
Employed	296	(89.7)
Not employed	34	(10.3)
Previous psychiatric contacts with other mental health services¹		
No	262	(80.4)
Yes	64	(19.6)
Diagnosis²		
Psychotic disorders	24	(7.3)
Affective disorders	73	(22.2)
Neurotic disorders	114	(34.7)
Personality disorders	49	(14.9)
Learning disability	15	(4.6)
Others	53	(16.2)
Prescription of psychotropic drug at first contact		
No	153	(46.3)
Neuroleptic only	24	(7.3)
Antidepressant only	38	(11.5)
Benzodiazepine only	39	(11.8)
Combination	76	(23.0)

1. Information on psychiatric history not available for 4 patients.
2. Information on diagnosis not available for 2 patients.

Table 1 Incidence of first-contact and first-ever-contact patients per 10 000 inhabitants by diagnostic group

Diagnosis	All first-contact patients (n=330) ¹			First-ever-contact patients (n=262) ¹		
	n	(%)	Rate per 10 000 (95% CI)	n	(%)	Rate per 10 000 (95% CI)
Psychotic disorders	24	(7.3)	2.3 (1.5–3.5)	18	(6.9)	1.78 (1.0–2.8)
Affective disorders	73	(22.3)	7.2 (5.6–9.0)	50	(19.2)	4.94 (3.6–6.5)
Neurotic disorders	114	(34.8)	11.2 (9.3–13.5)	97	(37.3)	9.59 (7.7–11.7)
Personality disorders	49	(14.9)	4.8 (3.5–6.4)	40	(15.4)	3.95 (2.8–5.3)
Learning disability	15	(4.6)	1.4 (0.8–2.4)	10	(3.8)	0.98 (0.4–1.8)
Others	53	(16.2)	5.2 (3.9–6.8)	45	(17.3)	4.45 (3.2–5.9)
Total	330	(100.0)	32.6 (29.2–36.3)	262	(100.0)	25.9 (22.8–29.2)

1. Information on diagnosis not available for 2 patients.

Table 3 Fate of first-contact patients after 2 years of follow-up

Outcome	n	(%)
Dropped out	153	(46.4)
Discharged	80	(24.2)
Still followed up	95	(28.8)
Deceased	2	(0.6)

Table 4 Socio-demographic and clinical variables of patients who dropped out, were discharged by agreement and those still followed up

	Dropped out (n=153)		Discharged (n=80)		Still followed up (n=95)		P
	n	(%)	n	(%)	n	(%)	
Gender							
Female	90	(58.8)	50	(62.5)	59	(62.1)	0.813
Male	63	(41.2)	30	(37.5)	36	(37.9)	
Age (years)							
17–30	47	(30.7)	23	(28.8)	35	(36.8)	0.227
31–50	55	(35.9)	28	(35.0)	40	(42.1)	
51–70	37	(24.2)	17	(21.3)	15	(15.8)	
71–88	14	(9.2)	12	(15.0)	5	(5.3)	
Living situation							
Alone	25	(16.3)	7	(8.8)	11	(11.6)	0.231
Not alone	128	(83.7)	73	(91.3)	84	(88.4)	
Employment status							
Employed	17	(11.1)	8	(10.0)	9	(9.5)	0.912
Not employed	136	(88.9)	72	(90.0)	86	(90.5)	
Previous psychiatric contacts with other mental health services¹							
No	124	(82.7)	65	(82.3)	71	(74.7)	0.275
Yes	26	(17.3)	14	(17.7)	24	(25.3)	
Diagnosis²							
Psychotic disorders	7	(4.6)	0	(0.0)	17	(17.9)	<0.001
Affective disorders	30	(19.9)	17	(21.3)	25	(26.3)	
Neurotic disorders	59	(39.1)	31	(38.8)	24	(25.3)	
Personality disorders	26	(17.2)	9	(11.3)	14	(14.7)	
Learning disability	3	(2.0)	10	(12.5)	2	(2.1)	
Others	26	(17.2)	13	(16.3)	13	(13.7)	
Prescription of psychotropic drug at first contact							
Yes	81	(52.9)	30	(37.5)	66	(69.5)	<0.001
No	72	(47.1)	50	(62.5)	29	(30.5)	

1. Information on psychiatric history not available for 4 patients.
 2. Information on diagnosis not available for 2 patients.

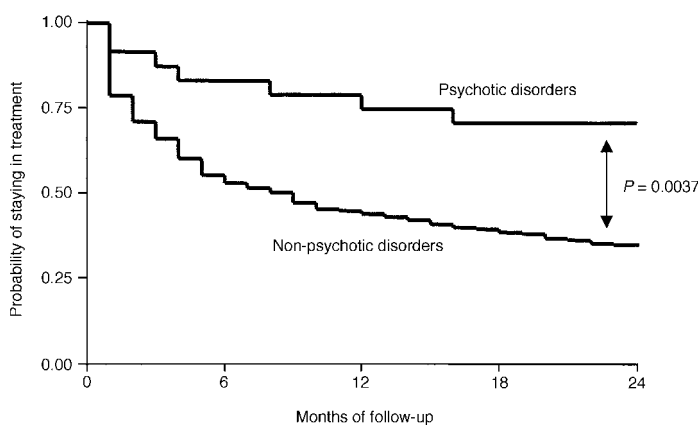


Fig. 1 Kaplan–Meier curve illustrating the survival probability (continuity of care) by diagnosis. Patients with psychotic disorders (F2 diagnoses) were more likely to survive than patients with non-psychotic disorders (log-rank test). Only those patients who dropped out of treatment or who were still followed up after 2 years were included in this analysis.

followed up, a quarter discontinued the contact in agreement with the treating psychiatrists and two patients had died (of causes unrelated to the psychiatric diagnosis) (Table 3).

Differences between patients who dropped out, were ‘discharged by agreement’ and who stayed in treatment

The distribution of patients who dropped out, were discharged and who continued treatment showed no significant differences in socio-demographic and clinical variables (Table 4). However, more continuing than discharged and drop-out patients were suffering from psychotic disorders, and more drop-outs than continuing patients suffered from neurotic and personality disorders. In addition, more continuing than discharged and dropout patients were prescribed psychotropic drugs at first contact. The survival probability of patients with and without a psychotic disorder over the 24 months of follow-up showed that the former were less likely to drop out (Fig. 1). A multivariate Cox regression analysis was carried out to determine the independent contribution of socio-demographic and clinical variables to the probability of leaving care. Using patients with psychosis as a reference category, patients with neurotic and personality disorders were more likely to drop out (Table 5). In addition, male gender was a risk factor for dropping out. Table 6 presents the distribution of drop-outs and patients continuing treatment by number of contacts per month with the CMHC. There were no real differences.

DISCUSSION

Monitoring community psychiatric services has been suggested as a possible way of supporting and guiding everyday clinical practice (Marks, 1998; Baron & Weiderpass, 2000; Knapp *et al*, 2000; Barbui *et al*, 2002). The goals of community psychiatry are to identify people suffering from psychiatric problems and to provide long-term care (Tansella *et al*, 1995). Therefore, rates of first-contact patients and rates of patients leaving care are key outcome indicators in this setting.

Annual rates of first-contact patients in the Magenta area were slightly higher than

Table 5 Cox regression analysis to determine the independent role of socio-demographic and clinical variables on the probability of leaving care (this analysis included only those patients who dropped out of treatment or who were still followed up after 2 years; the dependent variable was time to discontinuing contacts)

Independent variable	Hazard ratio ¹	(95% CI)	P
Gender			
Female	1		
Male	1.45	(1.01–2.07)	0.040
Age (years)			
17–30	1		
31–50	1.26	(0.82–1.94)	0.288
51–70	1.68	(1.00–2.82)	0.050
71–88	1.60	(0.78–3.27)	0.198
Living conditions			
Alone	1		
Not alone	0.77	(0.47–1.27)	0.323
Employment status			
Not employed	1		
Employed	0.75	(0.43–1.30)	0.317
Previous psychiatric contacts with other mental health services			
No	1		
Yes	1.49	(0.95–2.33)	0.076
Diagnosis			
Psychotic disorder	1		
Affective disorder	2.22	(0.94–5.24)	0.066
Neurotic disorder	2.36	(1.48–7.65)	0.004
Personality disorder	2.59	(1.10–6.08)	0.029
Learning disability	1.94	(0.49–7.67)	0.340
Others	2.53	(1.03–6.23)	0.043
Prescription of psychotropic drugs at first contact			
No	1		
Yes	0.70	(0.49–1.00)	0.056

1. A hazard ratio of unity is the reference category.

in other Italian catchment areas. We estimated that out of 10 000 inhabitants, 33 contacted the out-patient service in 1 year, compared with 20 in the Verona area (Balestrieri *et al*, 1992) and 26 in the Portogruaro area in 1990 (De Salvia & Rocco, 1992). These figures suggest that the Magenta CMHC is as accessible as other Italian community-oriented psychiatric facilities.

Drop-out rates in routine clinical practice

Continuity of care, considered a cornerstone of community psychiatry, has been monitored rarely in the Italian context of psychiatric care. We found that nearly half of the first-contact patients were no longer in treatment after 2 years of follow-up. This is hardly comparable with figures from the

literature because we adopted a very naturalistic approach, avoiding any form of patient selection and following all first-contact patients for a long time. Depending on study design and definition, drop-out rates in routine clinical practice vary between 20 and 60% (Swett & Noones, 1989; Mahneke *et al*, 1993; Pang *et al*, 1996; Tehrani *et al*, 1996; Killaspy *et al*, 1999), compared with estimates in experimental studies of around 30% of patients leaving care (Barbui & Hotopf, 2001). Morlino *et al* (1995), in a study conducted in Italy, estimated an overall drop-out rate of 82% at 3 months but the study setting was a university department with no particular catchment area. In this rather special context of care many patients arrived from far away, and this might explain the high drop-out rate. No association was detected between diagnosis and continuity of care; in contrast, two studies in the USA found that patients with schizophrenia (Young *et al*, 2000) and personality disorders (Cohen *et al*, 1995) were more likely to drop out. The present study indicated that in the Italian context of care, patients with psychosis are more likely to stay in treatment, and patients with neurotic and personality disorders are more likely to leave.

Study limitations

A first limitation of this study is the possibility of unreliability of the mental health information system, which might have missed some data. Although this possibility cannot be ruled out completely, the reliability of the definition of drop-outs was checked externally by analysing each patient's clinical chart and recording whether there was a failure to return after the last out-patient visit, even though a new appointment was planned. This double-check approach was adopted to be sure that the drop-out category reflected people who failed contact with the psychiatric service, and not a failure within the information system. A double-check approach, namely information collected at the index contact and information from the computerised system, was used also to identify first-contact patients. First-ever-contact patients, however, were identified using only information collected at the index contact, because the computerised system works in such a way that each psychiatric service has access only to its own service utilisation data.

Table 6 Number of contacts per month for those patients who dropped out of treatment and those who were still followed up after 2 years

Number of contacts per month	Dropped out (n=153)		Still followed up (n=95)		P
	n	(%)	n	(%)	
Between 0.04 and 1	77	(50.7)	54	(56.8)	0.343
More than 1	75	(49.3)	41	(43.2)	

A second limitation of this study comes from the lack of outcome data on patients who left care in comparison with those who stayed in treatment. Outcome data in our study would have provided an external check on the validity of the drop-out category and would have provided information on whether drop-out status is a matter of concern in the Italian context of psychiatric care. In fact, there is the possibility that some terminations of treatment might have been for good reasons, such as improvement in symptoms or moving out of the catchment area, and it is not easy to make a clear distinction between appropriate and non-appropriate terminations without following up all patients, including those who interrupted contacts. Young *et al* (2000) examined outcomes for continuing and drop-out patients and showed that average outcomes improved for both groups, and patients who left treatment and could be located for follow-up were less severely ill and showed the greatest improvement and the best outcomes. Killaspy *et al* (2000) assessed the outcome of attenders and non-attenders in a cohort of 365 UK psychiatric out-patients and found that those who failed to attend were more unwell and more socially impaired than those who kept their appointments.

Implications for practice

The finding that patients who stayed in treatment were more likely to suffer from psychotic disorders might be explained by the strong commitment of Italian CMHCs to providing care for people suffering from severe illness. Frankel *et al* (1989), in a UK out-patient facility, showed that patient factors were less important than aspects of the service in explaining non-attendance at out-patient appointments. In Italy, since the closure of mental hospitals, community psychiatric services have implemented strategies, attitudes and specific treatment plans to tackle the needs of patients with psychosis more than other patients (Tansella *et al*, 1987, 1995). A comparison between South Verona and Groningen showed that more patients in South Verona received community care within 2 weeks after hospital discharge, suggesting better continuity of care for severe cases in that specific system of care (Sytema *et al*, 1997). However, our data did not suggest that there was any selection of patients, at least judging from the total number of contacts per month with the CMHC, which

CLINICAL IMPLICATIONS

- Nearly half of the first-contact patients were no longer in treatment after 2 years of follow-up.
- Subjects suffering from neurotic and personality disorders were more likely to drop out in comparison with subjects suffering from psychosis.
- Continuity of care should be monitored routinely in community psychiatric services.

LIMITATIONS

- Generalisability may be limited, because the study was carried out in a single catchment area.
- Outcome data on patients who left care in comparison with those who stayed in treatment were not collected.
- Reasons for leaving care were not investigated.

MAURO PERCUDANI, MD, Department of Psychiatry, Hospital of Legnano, and Laboratory of Epidemiology and Social Psychiatry, 'Mario Negri' Institute for Pharmacological Research, Milan; GIANCARLO BELLONI, MD, AGOSTINO CONTINI, MD, Department of Psychiatry, Hospital of Legnano, Milan; CORRADO BARBUI, MD, Laboratory of Epidemiology and Social Psychiatry, 'Mario Negri' Institute for Pharmacological Research, Milan

Correspondence: Dr Corrado Barbui, Laboratory of Epidemiology and Social Psychiatry, 'Mario Negri' Institute for Pharmacological Research, Via Eritrea 62, 20157 Milan, Italy. Tel: +39 02 39014431; fax: +39 02 33200049; e-mail: barbui@marionegri.it

(First received 9 April 2001, final revision 14 September 2001, accepted 28 September 2001)

was similar for patients who left care and those who stayed in treatment.

ACKNOWLEDGEMENTS

This study would not have been possible without the collaboration of Anna Caimi, Valentina Mazzeo and the Magenta CMHC nursing staff.

REFERENCES

- Balestrieri, M., Meneghelli, G. & Tansella, M. (1992) Assistenza psichiatrica e monitoraggio dei servizi. Il Registro dei casi di Verona-Sud 1987–1990. *Epidemiologia e Psichiatria Sociale*, **1**, 117–132.
- Barbui, C. & Hotopf, M. (2001) Amitriptyline v. the rest: still the leading antidepressant after 40 years of randomised controlled trials. *British Journal of Psychiatry*, **178**, 129–144.
- , Tognoni, G. & Garattini, S. (2002) Clinical databases of patients receiving antidepressants: the missing link between research and practice? *Journal of Affective Disorders*, in press.
- Baron, J. A. & Weiderpass, E. (2000) An introduction to epidemiological research with medical databases. *Annals of Epidemiology*, **10**, 200–204.
- Black, N. (1999) High-quality clinical databases: breaking down barriers. *Lancet*, **353**, 1205–1206.
- Cohen, K., Edstrom, K. & Smith-Papke, L. (1995) Identifying early dropouts from a rehabilitation program for psychiatric outpatients. *Psychiatric Services*, **46**, 1076–1078.
- De Salvia, D. & Rocco, D. (1992) Assistenza psichiatrica e monitoraggio dei servizi. Il Registro dei casi di Portogruaro 1987–1990. *Epidemiologia e Psichiatria Sociale*, **1**, 101–116.
- Fattore, G., Percudani, M., Pugnoli, C., *et al* (2000) Mental health care in Italy: organisational structure, routine clinical activity and costs of a community psychiatric service in Lombardy region. *International Journal of Social Psychiatry*, **46**, 250–265.
- Frankel, S., Farrow, A. & West, R. (1989) Non-attendance or non-invitation? A case-control study of failed outpatient appointments. *BMJ*, **298**, 1343–1345.
- Harrison, G. & Eaton, W.W. (1999) From research world to real world: outcome measures are the key. *Current Opinion in Psychiatry*, **12**, 187–189.
- Killaspy, H., Banerjee, S., King, M., *et al* (1999) Non-attendance at psychiatric outpatient clinics: communication and implication for primary care. *British Journal of General Practice*, **49**, 880–883.

—, —, —, **et al (2000)** Prospective controlled study of psychiatric out-patient non-attendance. Characteristics and outcome. *British Journal of Psychiatry*, **176**, 160–165.

Knapp, M., Almond, S. & Percudani, M. (2000) Costs of schizophrenia: a review. In *Schizophrenia* (WPA series: Evidence and experience in psychiatry, vol. 2) (eds M. Maj & N. Sartorius), pp. 407–454. New York: John Wiley & Sons.

Mahneke, T., Dragsted, V., Jensen, P. S., et al (1993) Ambulatory psychiatry – a follow-up after 1 year. *Ugeskr Laeger*, **155**, 1464–1468.

Marks, I. (1998) Overcoming obstacles to routine outcome measurement. The nuts and bolts of implementing clinical audit. *British Journal of Psychiatry*, **173**, 281–286.

Morlino, M., Martucci, G., Musella, V., et al (1995) Patients dropping out of treatment in Italy. *Acta Psychiatrica Scandinavica*, **92**, 1–6.

Pang, A. H., Lum, F. C., Ungvari, G. S., et al (1996) A prospective outcome study of patients missing regular psychiatric outpatient appointments. *Social Psychiatry and Psychiatric Epidemiology*, **31**, 299–302.

Percudani, M., Fattore, G., Galletta, J., et al (1999) Health care costs of therapy – refractory schizophrenia patients treated with clozapine: a study in a community psychiatric service in Italy. *Acta Psychiatrica Scandinavica*, **99**, 274–280.

Regione Lombardia Settore Sanità e Igiene (1992) *I Servizi Psichiatrici Della Regione Lombardia nel 1992*. Regione Lombardia: Settore Sanità e Igiene.

Salvador-Carulla, L. (1999) Routine outcome assessment in mental health research. *Current Opinion in Psychiatry*, **12**, 207–210.

StataCorp (1995) *Stata Statistical Software: Release 4*. College Station, TX: Stata Corporation.

Swett, C. & Noones, J. (1989) Factors associated with premature termination from outpatient treatment. *Hospital and Community Psychiatry*, **40**, 947–951.

Sytema, S., Micciolo, R. & Tansella, M. (1997) Continuity of care for patients with schizophrenia and related disorders: a comparative south-Verona and Groningen case-register study. *Psychological Medicine*, **27**, 1355–1362.

Tansella, M., De Salvia, D. & Williams, P. (1987) The Italian psychiatric reform: some quantitative evidence. *Social Psychiatry*, **22**, 37–48.

—, **Micciolo, R., Biggeri, A., et al (1995)** Episodes of care for first-ever psychiatric patients. A long-term case-register evaluation in a mainly urban area. *British Journal of Psychiatry*, **167**, 220–227.

Tehrani, E., Krussel, J., Borg, L., et al (1996) Dropping out of psychiatric treatment: a prospective study of a first-admission cohort. *Acta Psychiatrica Scandinavica*, **94**, 266–271.

Thornicroft, G. & Tansella, M. (1999) Translating ethical principles into outcome measures for mental health service research. *Psychological Medicine*, **29**, 761–767.

World Health Organization (1992) *Tenth Revision of the International Classification of Diseases and Related Health Problems (ICD-10)*. Geneva: WHO.

Young, A. S., Grusky, O., Jordan, D., et al (2000) Routine outcome monitoring in the public mental health system: the impact of patients who leave care. *Psychiatric Services*, **51**, 85–91.