

## ORIGINAL PAPER

Stefan Priebe · Karin Hoffmann · Margarete Isermann · Wolfgang Kaiser

## Do long-term hospitalised patients benefit from discharge into the community?

Accepted: 16 March 2002

**Abstract** *Objective* The study investigated whether long-stay patients would benefit from discharge into the community in Berlin, Germany. *Method* In a prospective controlled study, all long-term hospitalised psychiatric patients from a defined catchment area were assessed using established standardised instruments. Quality of life, treatment satisfaction, needs and psychopathology were re-assessed in 63 non-discharged patients 1.5 years later, and in 65 resettled patients 1 year after discharge. *Results* Discharged patients were younger and had spent less time in psychiatric hospitalisation. Whilst patients who remained in hospital care did not show significant changes over time, discharged patients did. Changes in subjective quality of life and total number of needs – but not in psychopathology, unmet needs, and treatment satisfaction – were significantly more favourable in resettled patients as compared to the control group. *Conclusion* The findings are in line with other studies and suggest that long-stay patients can benefit from discharge into the community, particularly with respect to their quality of life. Positive changes in the process of deinstitutionalisation seem not dependent on the specific national context, and also apply to younger patients who have not yet spent 10 or more years in psychiatric hospitals.

**Key words** deinstitutionalisation – community mental health care – severe mental illness – quality of life – needs – treatment satisfaction

### Introduction

In most western industrialised countries, reforms of mental health care have led to the resettlement of formerly long-term hospitalised patients into the community. Various attempts have been made to evaluate these processes and to investigate whether patients are better off living in the community than they were in hospital settings [3, 5, 6, 17]. Only a few studies, however, applied a prospective design, e.g. the TAPS (Team for the Assessment of Psychiatric Services) study, which evaluated the closure of two large asylums in North London [16]. Its results are consistent with what other studies have suggested: for most patients, resettlement appears a viable option with little impact on psychopathology and positive effects on social contacts and other aspects of quality of life [14]. However, the TAPS study shares some contextual features with most other studies in the field that may make it difficult to generalise the results to settings in other European countries such as Germany. In TAPS, patients had – on average – been in hospitalisation for more than 20 years, whilst a significant number of those patients who are regarded as long-term hospitalised in Germany spent clearly less than 10 years as inpatients. Hospitals that patients were discharged from were in a poor state with limited therapeutic input, which does not reflect the situation of most hospitals in Germany of the 1990s.

In Berlin, the overall reduction in the number of hospital beds began in the 1990s. The Berlin Senate decided to downsize large psychiatric hospitals in Berlin, close 1847 of a total number of 5254 beds in general adult and old-age psychiatry and replace those facilities with services in the community, particularly for patients with chronic mental illnesses [28]. In this process, non-acute wards were closed, and patients who had been cared for

Professor Stefan Priebe  
Unit for Social and Community Psychiatry  
Barts and the London School of Medicine  
West Smithfield  
London EC1A 7BE  
Tel.: +44-208/586-5272  
Fax: +44-208/586-5273  
E-Mail: S.Priebe@qmw.ac.uk

K. Hoffmann, Dipl.-Psych.  
Dept. of Social Psychiatry  
Free University Berlin

M. Isermann, Dipl.-Psych. · Wolfgang Kaiser, PhD  
Hospital Spandau, Berlin

in hospitals needed to be discharged into the community. The Berlin Deinstitutionalisation Study assessed social and clinical outcomes of discharged patients in a prospective controlled design. We investigated whether the positive findings of existing studies would be replicated under different circumstances, i. e. (a) in the German health care system, which has some specific features and is very different from the state run health care system in the UK; (b) when – unlike in most previous studies – hospital buildings were acceptable and hospitals as well as community settings were well resourced; (c) in a sample that on average had been hospitalised for a shorter period than in the TAPS study; and (d) when specific self-rating methods for assessing quality of life and needs were applied in a pre-post design. In the light of previous studies we hypothesised positive changes in discharged patients concerning quality of life, treatment satisfaction and needs, but not psychopathology.

Whilst some findings of the Berlin Deinstitutionalisation Study have been published in German [8, 10, 23], here we report the overall analysis of outcomes after 1 year.

## Subjects and methods

The study was carried out in three boroughs in the Western part of Berlin. We interviewed and assessed all patients who fulfilled the following criteria: (a) residents in one of the three boroughs; (b) continuous hospitalisation on a psychiatric ward for more than 6 months at baseline in 1994/95; and (c) a clinical diagnosis according to ICD-10 of F1 (without Korsakoff's Syndrome), F2, F3, F4, F6 or F9. A research psychiatrist or psychologist, who was familiar with the setting but not involved in treatment, obtained written informed consent, confirmed the diagnosis and interviewed the patients at baseline and at follow-up.

Sociodemographic data and clinical history (number of previous hospitalisations, cumulative length of all hospitalisations, compulsory admissions) as well as details of current treatment were extracted from the files. Psychopathology was rated on the 18-item version of the Brief Psychiatric Rating Scale (BPRS; 20). Quality of life was assessed on the German version of the Lancashire Quality of Life Profile (LQLP; 12,19,22). We used a generic and not a disease specific concept of quality of life. The LQLP uses objective and subjective indicators of quality of life. Subjective quality of life is based on satisfaction ratings with life as a whole and with different life domains. Within this approach, the mean score of satisfaction ratings may be regarded as the only variable with sufficient psychometric properties for testing changes over time – unless the hypothesis is domain specific, which was not the case in our study [11, 25, 26]. For measuring needs, the Berlin Needs Assessment Schedule (BNAS; 6) was applied which – similar to the Camberwell Assessment of Needs – identifies self-rated needs in 16 life domains. If patients rate a need for help or support in a given life domain, they are then asked to assess whether and, if so, to what extent they are receiving help or support from services or their family and friends. Thus, the BNAS yields self-ratings on what needs for help and support there are and whether those needs are met or unmet. Satisfaction with treatment was rated on the Client's Assessment of Treatment Scale (CAT; 22,24) which uses 7-point rating scales on different aspects of mental health treatment. All instruments had been validated and used in other studies before [22, 24].

The BPRS sum score, the mean score of satisfaction ratings on the LQLP, the total number of needs and unmet needs as assessed on the BNAS and the sum score of the three CAT items that apply to hospital and to community treatment were taken as outcome criteria.

Patients who were not discharged were re-interviewed 1.5 years

after the baseline interview. Patients who were discharged into the community were followed-up 1 year after their discharge. In case they had been re-admitted to hospital within that 1-year period, the inclusion criterion for the discharged group was to have spent more than 6 months in the community. Patients who had been discharged and re-hospitalised having spent 6 months or less in the community were allocated to the non-discharged group.

The procedure was chosen to have, on average, a similar length of interval between baseline and follow-up in the two groups. In the resettled group, the time of the actual discharge varied, so that the interval between baseline and follow-up also varied. Since the average period between baseline assessment and discharge was approximately 6 months, the length of the interval between the two interviews was indeed similar in both groups.

### ■ Statistical analysis

The discharged and the non-discharged groups were compared. Baseline differences were analysed using  $\chi^2$ -test and t-tests. Changes over time were examined using a repeated measures analysis of covariance model for two factors – with repeated measures on one factor and group, i. e. discharged vs. non-discharged, on a second factor [27]. For controlling the influence of baseline differences in age, total length of hospitalisation and BPRS sum score, these three variables were entered as covariates. The Statistical Package for Social Sciences 9.0.1 was used for all analyses.

## Results

### ■ Subjects

The inclusion criteria were fulfilled by 291 patients. Interviews at baseline could not be completed with 54 patients: 18 refused to participate in the study, and interviews failed with 4 others for organisational reasons. In 28 patients the degree of psychopathology was too severe to conduct a reasonable interview, and in 4 additional patients the interview had to be discontinued because of interfering psychopathology. On average, the 54 patients who were not interviewed were older (mean: 56.7 vs. 48.3 years;  $p < 0.01$ ) and more frequently sectioned (28% vs. 11%;  $p < 0.001$ ) than the 237 interviewed patients.

Between baseline and follow-up, 6 patients had died. Sixteen patients who had been discharged were not re-interviewed because the 1-year follow-up period had not elapsed since discharge. A further 18 patients had been transferred to other hospital type institutions so that they were neither still hospitalised in the same place nor discharged into the community. In 69 patients the follow-up interview could not be conducted because their psychopathology was too severe, they refused a second interview or their whereabouts were not known. Table 1 compares baseline characteristics of the 109 patients of the original sample who were not included in the follow-up analysis with the 128 who were. The patients who were followed up had spent more time in hospitals and had fewer unmet needs than the other group.

At follow-up, 63 patients were still in the same hospital as at baseline. Eight of them had been discharged, but were re-hospitalised having spent less than 6 months in

**Table 1** Baseline characteristics of the total sample and of the groups that were and were not followed up (including differences between the two groups)

Variables	Total sample (N = 237)	Follow-up sample		Statistics		
		Included (N = 128)	Not included (N = 109)	d. f.	Chi <sup>2</sup> or t	P
Continuous variables: mean (s. d)						
Categorical variables: N (%)						
Age in years	48.3 (14.5)	47.2 (13.6)	49.5 (15.4)	235	-1.21	NS
Gender						
Female	101 (43 %)	57 (45 %)	44 (40 %)			
Male	136 (57 %)	71 (55 %)	65 (60 %)	1	0.52	NS
Hospitalisation						
Number of admissions	8.8 (9.4)	9.5 (10.6)	7.9 (7.8)	235	1.28	NS
Cumulative months	99.9 (117.8)	122.1 (129.3)	73.8 (96.0)	230.9	3.29	< 0.01
Present stay > 2 years	115 (49 %)	72 (56 %)	43 (39 %)	1	6.0	< 0.05
Diagnoses (ICD 10)						
Schizophrenia	176 (74 %)	100 (78 %)	76 (70 %)			
Alcoholism	29 (12 %)	11 (9 %)	18 (17 %)			
Other	32 (14 %)	17 (13 %)	15 (14 %)	2	3.59	NS
Psychopathology						
BPRS total score	45.0 (15.6)	43.6 (14.2)	46.6 (17.0)	235	-1.47	NS
Assessment of treatment						
CAT (mean score) <sup>a</sup>	6.7 (2.5)	6.8 (2.5)	6.7 (2.5)	233	0.35	NS
Needs (BNAS)						
Total	4.5 (2.9)	4.5 (2.9)	4.5 (3.0)	235	-0.12	NS
Unmet	1.8 (1.9)	1.6 (1.9)	1.9 (1.8)	235	-1.37	NS
Quality of life (LQOP)						
Subjective mean score	4.6 (1.2)	4.7 (1.5)	4.4 (0.9)	235	1.64	NS

Single items missing for sumscales (BPRS, CAT, BNAS, LQOP-subjective mean score) are substituted if items missing are < 50 %

<sup>a</sup> 1 % missing data

the community. Sixty-five had been discharged into the community. The care arrangements for these 65 patients varied and included: out-patient medical treatment in office-based practices or through hospital-based institutions; support through social workers, psychologists and psychiatric nurses; and contacts with community-based services such as drop-in centres and day-care facilities. Forty patients had been discharged into supported single or group living arrangements. The other 25 patients lived independently at the time of the interview.

During the 1-year follow up period after discharge, 19 patients were re-admitted to hospital. Twelve of them were re-hospitalised once, 4 patients two or three times, and 3 patients four or five times. In 6 patients the cumulative time of these re-hospitalisations was less than a month, in another 6 it ranged from 1 to 3 months, and in 3 patients it was up to 6 months. At the time of the follow-up interview all of them lived in the community again.

### ■ Baseline differences between discharged and non-discharged patients

Table 2 summarises baseline characteristics of the two groups.

On average, the discharged group was 10 years younger and had spent in total 10.5 years less in psychiatric hospitals. Patients in this group were less likely to

have a diagnosis of schizophrenia, showed a lower degree of overall psychopathology, and expressed a higher satisfaction with treatment at baseline. Other differences failed to reach statistical significance.

### ■ Changes over time

Table 3 shows results for repeated measures analysis of variance with the influence of age, total time in psychiatric hospital, and BPRS baseline sum score being controlled for as co-variables, with the exception of the analysis with BPRS as an outcome criterion when only age and total time in hospital were entered as co-variables.

The interaction time by group was significant for the subjective quality of life mean score and the total number of needs, indicating that patients discharged into the community had significantly more favourable changes in quality of life, and in the total number of needs than those still in hospital. The BPRS sum score improved significantly for the whole sample between baseline and follow-up, yet the two groups did not differ significantly in these changes. Unmet needs and satisfaction with treatment did not change significantly over time, nor was there any significant interaction between time and group on these variables. Thus, discharged patients appear to have had more favourable changes in quality of life and needs, whilst the other outcome criteria did not differ between the two groups.

**Table 2** Baseline characteristics of the discharged and the non-discharged patients (t1)

Variables Continuous variables: mean (s. d) Categorical variables: N (%)	Group A = hospitalised at t1 and t2 (N = 63)	Group B = discharged at t2 (N = 65)	Statistics		
			d. f.	Chi <sup>2</sup> or t	P
Age in years	52.3 (12.7)	42.3 (12.8)	126	4.42	< 0.001
Gender					
Female	30 (48 %)	27 (42 %)			
Male	33 (52 %)	38 (58 %)	1	0.48	NS
Hospitalisation					
Number of admissions	9.8 (9.2)	9.2 (11.9)	126	0.35	NS
Cumulative months	186.0 (144.0)	60.1 (71.8)	90.41	6.23	< 0.001
Present stay > 2 years	49 (78 %)	23 (35 %)	1	23.36	< 0.001
Diagnoses (ICD 10)			2	18.04	< 0.001
Schizophrenia	59 (94 %)	41 (63 %)			
Alcoholism	1 (2 %)	10 (15 %)			
Other	3 (4 %)	14 (22 %)			
Psychopathology					
BPRS total score	49.6 (13.3)	37.8 (12.5)	126	5.17	< 0.001
Assessment of treatment					
CAT (mean score) <sup>a</sup>	6.1 (2.7)	7.4 (2.2)	116.53	-3.11	< 0.003
Needs (BNAS)					
Total	4.1 (2.8)	4.8 (2.9)	126	-1.37	NS
Unmet	1.7 (2.0)	1.5 (1.8)	126	0.48	NS
Quality of life (LQOP)					
Subjective mean score	4.9 (1.8)	4.5 (1.0)	126	1.19	NS

Single items missing for sumscales (BPRS, CAT, BNAS, LQOP-subjective mean score) are substituted if items missing are < 50 %

<sup>a</sup> 1 % missing data

**Table 3** Changes over time in the discharged and the non-discharged group (t1 vs. t2)

Variables (mean, s. d)	Group A = hospitalised at t1 and t2 (N = 63)		Group B = discharged at t2 (N = 65)		Repeated measures ANOVA with covariates						
	t1	t2	t1	t2	Within subjects factor time: total group t1 vs. t2			Between subjects factor time x group: A vs. B			
					d. f.	F	P	d. f.	F	P	
Psychopathology											
BPRS total score	49.6 (13.3)	46.6 (12.1)	37.8 (12.5)	34.8 (9.9)	1	11.44	< 0.001	1	0.00	NS	
Assessment of treatment											
CAT (mean score)	6.1 (2.7)	6.2 (2.9)	7.5 (2.2)	8.1 (2.0)	1	0.01	NS	1	0.83	NS	
Needs (BNAS)											
Total	4.1 (2.8)	4.4 (2.7)	4.8 (2.9)	3.7 (2.5)	1	0.00	NS	1	6.16	< 0.02	
Unmet	1.7 (2.0)	1.4 (1.7)	1.5 (1.3)	1.3 (1.5)	1	0.18	NS	1	0.19	NS	
Quality of life (LQOP)											
Subjective mean score	4.9 (1.8)	4.7 (1.1)	4.5 (1.0)	5.0 (1.1)	1	0.59	NS	1	8.93	< 0.004	

Covariates are age, total hospitalisation time, BPRS (t1); for BPRS as outcome criterion covariates are age and total time in hospital

P-values are two-tailed

Single items missing for sumscales (BPRS, CAT, BNAS, LQOP-subjective mean score) are substituted if items missing are < 50 %

Missing data for t1: see Table 2

Missing data for t2: CAT = Gr A: 2 %, Gr B: 19 %

## Discussion

The Berlin Deinstitutionalisation Study has been a systematic, prospective and controlled investigation. The controlled comparison between the discharged and the non-discharged group, however, has methodological limitations. At baseline, 82 % of all eligible patients were assessed which seems a reasonable rate by comparison with other studies. Within the follow-up period there

was a significant drop-out rate which was partly due to the fragmentation of the German healthcare system and restrictions on following patients because of strict data protection legislation in Germany. Researchers were not entitled to contact patients if the patients did not respond to letters asking them to participate in another interview that were sent from the service they had been – or were currently being – treated in. Although drop-outs and interviewed patients differed significantly only in a few baseline variables, it remains unclear whether

and, if so, to what extent this selection influenced the results. Allocation to the two groups was dependent on administrative, organisational and clinical aspects, and not randomised [8]. As a result, the two groups were significantly different on some baseline variables. In particular, the discharged group was younger and had spent much less time in hospital. On average, their cumulative length of in-patient hospitalisation was less than 5 years. At the time of the baseline interview, 65% of them had continuously spent less than 2 years in hospital. Some of the baseline differences may reflect the well-reported tendency that the more difficult patients – i. e. those with longer histories of hospitalisation, higher degrees of psychopathology and lower treatment satisfaction – stay longest in hospitals and are resettled last. When the influence of the baseline differences was controlled for in a statistical analysis, the difference in changes over time between the two groups still held true. Thus, the more positive outcome in the discharged patients is not a mere function of younger age, less time spent in hospital or lower degree of psychopathology. It nevertheless can be speculated as to whether younger age and less time spent in hospital might have made the discharged group qualitatively different in other important ways from the non-discharged patients and from samples studied in other similar studies.

Whilst comparing the two groups may be difficult, the pre-post-design clearly revealed positive changes between baseline and follow-up in the discharged group. It was these positive changes over time in the discharged patients that accounted for the significant difference in changes of needs and quality of life between the two groups. The non-discharged patients remained more or less unchanged during follow-up as one would expect since they continued to stay in the same conditions they had been in for a long time already. Funding levels and conditions in the hospitals concerned remained consistent for the non-discharged patients.

In line with the literature in this area, psychopathology was not found to change. Unlike in other studies, satisfaction with treatment also remained unaffected. It has to be taken into account that baseline satisfaction was comparatively high in the discharged group so that there was little scope for further improvement. There was no effect on unmet needs, yet the number of unmet needs at baseline was relatively small in both groups. A significant effect, however, was found on quality of life and total number of needs. The discharged group appears to have benefited from resettlement and probably from new forms of care in the community. The discharged patients were younger and had spent less time in hospital than samples in other studies. Younger patients, who have not been hospitalised for many years, are likely to be a greater challenge to mental health care in the future than the dwindling number of patients who have spent decades in psychiatric hospitals. Thus, the findings may be of particular interest to future health care planning. The potential to benefit from re-settlement may be greater in younger patients who have not spent 10 or

more years in psychiatric hospitals, and one can only speculate about the reasons. This patient group might have retained essential social skills needed for independent living and for establishing contacts in the community, and a cognitive capacity to adjust to the change of environment. The positive changes in the discharged group reported herein were assessed after 1 year in the community. Results of the TAPS study suggest that even further improvement may occur over 5 years [13].

The results of any study evaluating discharge of long-term hospitalized patients will be influenced by the national and local context [4]. Yet, the reported results are consistent with the general findings of other studies in the field, most of which were conducted in anglophone countries. On a group level, long-term hospitalised patients seem to benefit from discharge into the community even when, as was the case in this study, hospital care had been well resourced and staffed. At the time of the study, funding for hospital beds as well as for community services in Berlin was – at least by UK standards – generous. Although precise and comprehensive comparative figures on mental health care spending for Germany and the UK are not available, neither on a national nor on a regional level [2], there are several indicators that some circumstances including funding were – and still are – relatively favourable in Berlin. There was no shortage of qualified staff of any professional background so that all posts in all services could be easily recruited to. Places in various forms of supported accommodation were always available when needed. Additionally, there were a range of complementary services including different employment schemes and day opportunities for the mentally ill and more than one consultant psychiatrist per 7000 population in that part of Berlin. Mental health care in Berlin, like in the rest of Germany, may be extremely fragmented and poorly coordinated, but it did not primarily suffer from a lack of resources – a situation that has not changed significantly since the completion of the study. In this important respect the circumstances of deinstitutionalisation as evaluated in this study might be seen as distinct from those evaluated by the TAPS study.

Concerning the methods used in this study for evaluating deinstitutionalisation, it seems noteworthy that subjective ratings of quality of life and needs did show significant change over time. Thus, the self-rating measures used appear sensitive to change although such sensitivity has been repeatedly questioned [1]. The findings yielded by using the mean score of satisfaction ratings in a pre-post-design are statistically highly significant and consistent with results of other studies that applied less detailed methods and retrospective designs for assessing changes in quality of life after resettlement into the community. Published deinstitutionalisation studies from anglophone countries with similar or larger sample sizes assessed quality of life changes merely retrospectively and did not apply systematic and validated instruments [15, 18, 21]. In the discharged patients the mean score of satisfaction ratings improved by

0.5 scale points on a group level which may seem a small change, but – given a standard deviation of around 1 scale point – corresponds to a medium-sized effect [11, 12, 25].

It may not yet be clear what cognitive processes patients' more positive appraisal of their life is based on and what the mediating factors for the improvement are. Nevertheless, it may be concluded that resettlement and care in the community can be associated with an improvement of patients' quality of life and a reduction of their self-rated needs. Positive changes in the process of deinstitutionalisation seem to hold across nations and might be independent of details of how the health care system is arranged and how community care is provided.

■ **Declaration of interest** The Berlin Deinstitutionalisation Study was in part supported by unconditional funding from the Hospital Spandau and the voluntary organisation 'Planetree 19'.

## References

- Barry MM, Zissi A (1997) Quality of life as an outcome measure in evaluating mental health services: a review of the empirical evidence. *Soc Psychiatry Psychiatr Epidemiol* 32: 38–47
- Becker T, Vazquez-Barquero JL (2001) The European perspective of psychiatric reform. *Acta Psychiatr Scand* 104 (suppl. 410): 8–14
- Braun P, Kochansky G, Shapiro R, Greenberg S, Gudeman J, Johnson S, Shone M (1996) Overview: deinstitutionalization of psychiatric patients, a critical review of outcome studies. *Am J Psychiatry* 138: 736–749
- Burns T, Priebe S (1996) Mental health care systems and their characteristics: a proposal. *Acta Psychiatr Scand* 94: 381–385
- Ford M, Goddard C, Landsdell-Welfare R (1987) The dismantling of the mental hospital? Glenside Hospital surveys 1960–1985. *Br J Psychiatry* 151: 479–485
- Harding CM, Brooks GW, Ashikaga T, Strauss J, Breier A (1987) The Vermont longitudinal study of persons with severe mental illness: I. Methodology, study sample, and overall status 32 years later. *Am J Psychiatry* 144: 718–726
- Hoffmann K, Priebe S (1996) Needs for help and support in the view of schizophrenic long-term patients and of their therapists (in German). *Fortschritte der Neurologie Psychiatrie* 64: 473–481
- Hoffmann K, Isermann M, Kaiser W, Priebe S (2000) Quality of life in the course of deinstitutionalisation – Part IV of the Berlin Deinstitutionalisation Study (in German). *Psychiatr Praxis* 27: 183–188
- Jones D (1993) The TAPS project: 11. The selection of patients for reprovion. *Br J Psychiatry* 162 (suppl. 19): 36–39
- Kaiser W, Hoffmann K, Isermann M, Priebe S (2001) Long-term patients in supported housing after deinstitutionalisation – Part V of the Berlin Deinstitutionalisation Study (in German). *Psychiatr Praxis* 28: 235–243
- Kaiser W, Priebe S (1998) On the measurement of long-term and short-term change of subjective quality of life in chronic schizophrenia patients (in German). *Nervenarzt* 69: 219–227
- Kaiser W, Priebe S, Barr W, Hoffmann K, Isermann M, Röder-Wanner U-U, Huxley P (1997) Profiles of quality of life in schizophrenic in- and out-patient samples. *Psychiatry Res* 66: 153–166
- Leff J, Trieman N (2000) Long-stay patients discharged from psychiatric hospitals. Social and clinical outcomes after five years in the community. The TAPS project 46. *Br J Psychiatry* 76: 217–223
- Leff J, Trieman N, Knapp M (2000) The TAPS Project. A report on 13 years research, 1985–1998. *Psychiatr Bull* 24: 165–168
- Leff J, Dayson D, Gooch C, Thornicroft G, Wills W (1996) Quality of life of long-stay patients discharged from two psychiatric institutions. *Psychiatr Serv* 47: 62–67
- O'Driscoll C (1991) The TAPS project: 7. Mental hospital closure – a literature review of outcome studies and evaluative techniques. *Br J Psychiatry* 162 (suppl. 19): 7–17
- O'Driscoll C, Leff J (1993) The TAPS project: 8. Design of the research study on the long-stay patients. *Br J Psychiatry* 162 (suppl. 19): 18–24
- Okin RL, Pearsall D (1993) Patients' perceptions of their quality of life 11 years after discharge from a state hospital. *Hospital and Community Psychiatry* 44: 236–240
- Oliver JPJ, Huxley P, Priebe S, Kaiser W (1997) Measuring the quality of life of severely mentally ill people using the Lancashire Quality of Life Profile. *Soc Psychiatry Psychiatr Epidemiol* 32: 76–83
- Overall JE, Gorham DR (1962) The Brief Psychiatric Rating Scale. *Psychol Report* 10: 799–812
- Pinkney AA, Gerber GJ, Lafare HG (1991) Quality of life after psychiatric rehabilitation. *Acta Psychiatr Scand* 83: 86–91
- Priebe S, Gruyters T, Heinze M, Hoffmann C, Jäkel A (1995) Subjective criteria for evaluation of psychiatric care – Methods for assessment in research and routine care (in German). *Psychiatr Praxis* 22: 140–144
- Priebe S, Hoffmann K, Isermann M, Kaiser W (1996) Clinical characteristics of long-term hospitalised patients. Part I of the Berlin Deinstitutionalisation Study (in German). *Psychiatr Praxis* 23: 15–20
- Priebe S, Kaiser W, Huxley P, Röder-Wanner U-U, Rudolf H (1998) Do different subjective evaluation criteria reflect distinct constructs? *J Nervous Mental Disease* 186: 385–392
- Priebe S, Oliver JPJ, Kaiser W (eds) (1999a) Quality of life and mental health care. Wrightson Biomedical Publ., Petersfield
- Priebe S, Huxley P, Knight S, Evans S (1999b) Application and results of the Manchester Short Assessment of Quality of Life (MANSA). *Intern J Soc Psychiatry* 45: 7–12
- Rossi PH, Freeman HE (1993) Evaluation. Sage, Beverly Hills
- Senatsverwaltung für Gesundheit und Soziales in Berlin (1996) *Psychiatrie-Entwicklungsprogramm für das Land Berlin – Psychiatrie Bericht Berlin Teil III*. Author, Berlin