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Factors affecting public attitudes towards mental health care

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Summary This study presents a telephone survey of 501 randomly sampled residents of the Grand Duchy of Luxembourg older than 15 years of age. The interviewees were questioned on their attitudes and judgements towards mental health care in Luxembourg. The implementation of a community-based mental-health-services delivery system in Luxembourg is in its initial stages. Being the smallest member of the European Community Luxembourg offers the opportunity to analyze a whole catchment area in transition marked off clearly by national borders. As a general rule the people of Luxembourg are undecided when it comes to mental health care. Almost half of the sample answered "don't know" when asked about the quality of several sectors of mental health care, excluding inpatient care. The factors that had a significant influence on the attitude of the people of Luxembourg regarding mental health care were nationality, age, class and personal contact with mentally ill persons, with a tendency of worse judgements in younger age groups and in members of upper social classes. We fitted multivariate models including these variables. The results of our study point to entrenched prejudice. The findings suggest, however, that attitudes are changeable by direct or indirect contact with mentally ill persons. Possible strategies that could change public attitudes towards mental health care in a mental health care system that is in transition are discussed.

Introduction

One of the major challenges of psychiatry worldwide is the development of community-based treatment and support programs for the chronically mentally ill formerly kept in restrictive and custodial institutional settings. In many countries deinstitutionalization has been accompanied by the development of comprehensive community-based service delivery systems.

In the early stages of the restructuring of mental health care community members often demonstrated tolerance and a positive attitude towards psychiatric community care (Christiansen and Münstermann 1976), because they recognized the obvious need for mental health care reforms. However, when the actual process of deinstitutionalization took place and mental health care facilities were created within the community, the public became much less enthusiastic. There are numerous cases of open rejection.

Smith and Hanham (1991) found that 39% of the respondents of a representative survey in Oregon did not want a mental health care facility in their neighbourhood. Only facilities for socially disturbed adolescents and alcohol and drug addicts created higher resistance. According to another North American study, for every community-based facility that is built and running, another facility has either been forced to close or not even been allowed to get established (Baron and Piasecki 1981). Also, a study conducted in Canada showed that 25–30% of the population strongly opposed sheltered living accommodations for mentally ill persons within their community (Tefft et al. 1987). Those involved with mental health care reforms began to fear that ongoing deinstitutionalization would exceed public tolerance and cause a backlash against psychiatric patients and their supporting services (Hall et al. 1993).

In Europe Brockington et al. (1993) recently found that community care did not greatly affect traditional prejudices of residents. Regarding these results one can conclude that public attitude towards mental health care is not only based on traditional beliefs, but is also extremely difficult to change. This supports the early results of Cumming and Cumming (1957) who, after having conducted a half-year-long mental health education programme in a Canadian small town, had not managed to change the residents' attitudes towards the mentally ill.

Although these findings are important for community health councils, service providers and mental health services, those required to utilize these services, i.e. the pa-

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tients, are affected as well. In fact, the social environment into which a chronically mentally ill patient is dismissed influences rehabilitation, symptoms and relapses (Taylor et al. 1984). Thus, it can be said that the public attitude determines the quality of modern psychiatric care. If the public rejects the system, all efforts of reformers are in vain. Unfortunately, reformers often do not know enough about the patterns of public attitudes towards mental health care and how they come into being. They also lack information on how people's attitudes can be changed and to what extent this can be done. Indeed, in order to change public opinion experts need detailed knowledge of the influencing factors. This is especially important for those areas where mental health care reform is still in progress. We can avoid costly failures by using reform strategies that take into account public attitude.

The Grand Duchy of Luxembourg is presently undergoing a transition from an inpatient to a community-based service. We therefore chose this area to assess public attitude towards mental health care and the factors influencing them. Currently, the main focus of mental health care research is evaluating community care. But the public often associates mental health care with psychiatric inpatient treatment (Test and Stein 1978). This is especially the case for those areas in which custodial care is still prevalent as in Luxembourg. For this reason the focus of our study is on public attitudes towards Luxembourg's psychiatric hospitals.

Mental health care in Luxembourg

With approximately 400,000 inhabitants the Grand Duchy of Luxembourg is the smallest member state of the European Community. Of this population 25% are of other nationalities. Although the country is advanced economically, custodial care still dominates mental health care. With a ratio of 2.6 psychiatric beds per 1000 inhabitants Luxembourg exceeds the bed ratio of the United Kingdom in 1990 with 1.19 beds per 1000 (Wing 1993) as well as that of Luxembourg's neighbouring countries, i.e. Belgium with 2.08 beds per 1000 in 1989, France with 1.86 beds per 1000 in 1987 and, lastly, the Federal Republic of Germany (before re-unification) with 1.43 beds per 1000 in 1990 (Rössler and Salize 1993). Some districts in Britain even have 0.2 beds per 1000.

The country's mental health care rests to a great extent on the inpatient services given by one state mental hospital (720 beds), which holds approximately 80% of the country's psychiatric beds. Inpatient care is also offered in three psychiatric departments in general hospitals. In total, these departments hold approximately 115 beds. However, these departments can only provide limited care, because they are not set up to treat compulsorily admitted patients (Rössler et al. 1993).

More than two-thirds of the residents of the state mental hospital are presently long-term patients, many of them having been inpatients for more than 10 years. In accordance with the high proportion of long-stay patients in the state mental hospital there are only 48 places for sheltered accommodation in the community. Even smaller is the number of sheltered workshop places for the mentally ill (25 for the whole country). Outpatient care is dominated by psychiatrists in office practice, whereas there are only very few social psychiatric centres serving the severely mentally ill.

The current situation is the result of an historical development. During the 1960s the National Health Authorities had already recognized the need for psychiatric reforms. As in the first place the treatment conditions of the state mental hospital seemed intolerable priority was given to this hospital and most of the available funds were allocated to it. Thus, today community mental health services are poorly developed. The need for improvement in community care is urgent. A plan for a far-reaching reform in Luxembourg's mental health care has been developed by the authors of this paper (Rössler et al. 1993).

Materials and methods

We conducted our study by means of a telephone survey. In the United States as well as in western and middle European countries the method of the telephone survey is being accepted as a valid method on the same level with the more classical face-to-face interview (Frey et al. 1990). Because 90% of the households in these countries are equipped with telephones, representative results can be expected with more than 60% participation when working with a correct random sample.

Respondents of our survey could choose between the two official languages of the country, Luxembourgian and French, as well as Portuguese. Portuguese speakers make up the largest ethnic group of immigrants (8% of all inhabitants) followed by Italians (6%).

We interviewed 501 randomly sampled residents of Luxembourg aged older than 15 years. By using the quota sampling method we were able to ensure representativeness by stratifying the sample for age, gender and residential area in a way comparable to the entire population of Luxembourg. Piloting was done with 80 interviewees in Mannheim. The interview lasted 20–30 min. The interviewees first were informed about the purpose of the survey. Then we asked the participants to make a judgement on the quality of care for separate mental health care sectors. Precisely, our question was, "What do you think about psychiatric care in Luxembourg: specifically, how good is mental health care provided by (a) inpatient services, (b) psychiatrists in office practice, (c) sheltered workshops, (d) sheltered living facilities and (f) day centres?" Respondents could choose between the answers "mainly good", "mainly bad" and "don't know". At the end of the interview some sociodemographic characteristics were questioned: gender, age, nationality, profession, education, household size, marital status, residential status and term of residence. We also asked about personal treatment experiences or acquaintances with mentally ill persons, or whether interviewees have contact to mentally ill persons in everyday life.

To analyze our data we used the Statistical Analysis System (SAS). Then we fitted multivariate models according to the so-called Grizzle-Starmer-Koch (GSK) method (Grizzle et al. 1969). We chose this method because it is additive and open to non-hierarchical models contrary to the multiplicative models for categorical data, the so-called logit models. This method also allows a more vivid interpretation of coefficients (Küchler 1979; Langeheine 1980a, b).

Table 1 Judgements on the quality of mental health care in Luxembourg by a total population sample ($n = 501$)

Care sector	Mainly good (%)	Mainly bad (%)	Don't know (%)
Inpatient care	33.9	27.4	38.7
Outpatient care (psychiatrists in office practice)	32.2	15.6	52.2
Social psychiatric centres	27.3	12.1	60.6
Sheltered accommodation	24.5	17.9	57.6
Sheltered workshops	25.0	21.4	53.6
Day centres	26.5	21.0	52.5

Results

Judgements about mental health care

Although the question was put clearly and the choices of answers were not difficult to make, many participants were not able to make a definite decision. Over 50% of the people we interviewed answered "don't know" for all of the sectors, excluding inpatient care (Table 1). People tend to see all sectors in a positive light. Of all sectors inpatient care received most of the favourable responses and, at the same time, the most negative judgements.

Factors affecting people's opinion of mental health care

Because people appeared to have more understanding of inpatient mental health care, thus having a more definite attitude towards it, we decided to focus on this sector when investigating the factors that have an influence on attitude. Researchers often use the concept of "proximity" to mental health care facilities when analyzing discrepant attitudes towards mental health care (Segal et al. 1980; Smith and Hanham 1991; Taylor et al. 1984). However, one must also take into account other variables when studying what influences people's attitudes towards psychiatric hospital care. Therefore, we also considered variables that reflect the sociodemographic background of the participants (i.e. age, class, gender, marital status, etc.), as well as variables that represent the participant's own experience with mental health care or mentally ill persons. Thus, we analyzed two different sets of influencing variables.

By doing an univariate analysis of the sociodemographic variables we were able to identify the factors that indirectly influence attitudes towards inpatient care. We developed our second set of variables (the respondent's experience of mental illness or the mentally ill) based on the hypothesis that physical, social or psychological distance or nearness to mental health care or mentally ill people directly affects attitudes towards mental health care.

Table 2 Judgements on psychiatric hospital care in Luxembourg (total population), univariate analysis

Sociodemographic variables	Own treatment experience or acquaintance with mentally ill persons (variables)
Nationality***	
Age**	
Class*	Acquaintance with mentally ill persons*
Region	Own previous treatment
Gender	
Education	Contact with mentally ill persons during daily business
Size of household	
Profession	
Marital status	
Judgement on own economic situation	
Residential status	
Term of residence	
Residential satisfaction	

* $P < 0.05$
** $P < 0.01$
*** $P < 0.001$
NOTE: Remaining variables were not statistically significant

Univariate analysis

Within the set of sociodemographic variables we found significant differences in opinions regarding inpatient treatment according to nationality, age and class (Table 2). When separating the ethnic groups of Luxembourg we found that the largest minority group, the Portuguese, judge inpatient mental health care significantly better than the native people of Luxembourg or the Italians (who are the second largest minority group and are more assimilated than the Portuguese). Also, respondents aged older than 65 years or younger than 25 years had a significantly better opinion than people aged between 25 and 65 years. Using a special two-class model (middle classes vs upper classes), which is appropriate for the economical situation of Luxembourg (large service industries, low unemployment rate and a high standard of living) we found that attitudes towards inpatient care are significantly more negative in the upper classes than in the middle classes.

When doing a univariate analysis on the second set of variables (describing experience with mental illness or with the mentally ill) we found that respondents acquainted with the mentally ill judged inpatient treatment significantly more negatively than those who did not know someone with such an illness. On the other hand, experiences with the mentally ill in everyday life (i.e. at work and shopping) did not significantly influence opinions. There was also no such significant effect when a respondent had experienced a treatment because of first-hand mental health problems.

Multivariate models

In order to analyze the interaction between the variables we applied multivariate models. Separate models limited to three variables, in order to avoid empty cells, were tested for the two sets. We chose all variables that were significant in the univariate analysis as well as those variables that we felt might be appropriate for the models although not statistically significant. We began with an analysis of the sociodemographic variables. The results show that the main effects of the model, which best fit the empirical data, are those variables that were significant in the univariate analysis (age, class and nationality). We included the first degree interactions between these variables to obtain the optimum model (Table 3). The model proposed fits fairly well to the empirical data (p = 0.3428). The model predicts, for example, that a middle-class immigrant aged less than 50 years will judge inpatient mental health care in Luxembourg most favourably of all analyzed subpopulations. Figure 1 shows the predicted responses of "good", "bad" or "don't know" answers of the different subgroups under the conditions of our model.

We also developed a model with an almost optimum fit to the variable group defining "experience with the mentally ill or mentally ill or mental illness" (Table 4; p = 0.9728). However, we could only achieve this fit with a loss of parsimony. The variable "acquaintance with mentally ill" has the main effect in this model. This effect also interacts with the variables "contact with the mentally ill in everyday life" and "previous personal treatment because of mental health problems". Nevertheless, these variables do not enter into the model as main effects. Even a second-degree interaction between acquaintance, contact and personal treatment must be taken into account in order to achieve a good fit to the model.

The model suggests that personal acquaintance with someone who is mentally ill has an adverse effect on people's attitude towards psychiatric hospital treatment. If someone not only knows a person who is mentally ill (the only significant variable of this set in the univariate analysis), but also has contact with them in everyday life, his or her opinion of this kind of psychiatric treatment becomes even more negative. If a person has experienced treatment him- or herself, the negative opinion is likely to be con-

Table 3 Multivariate model of sociodemographic variables with an effect on judgements on psychiatric hospital care in Luxembourg (A = age group; C = social class, N = nationality)

Hypothesis	Main effects and interactions						$\chi 2$	*df*	*P*
H1	–	–	–				735.02	14	0.0000
H2	A	C	N				60.58	8	0.0000
H3a	A	C					112.36	10	0.0000
H3b	A		N				132.70	10	0.0000
H3c		C	N				87.69	10	0.0000
H4a	A	C	N	A*C	A*N		15.92	4	0.0031
H4b	A	C	N	A*C	C*N		10.45	4	0.0335
H4c	A	C	N		A*N	C*N	6.45	4	0.1682
H4d	A	C	N	A*C	A*N	C*N	2.14	2	0.3428

NOTE: Best fit: H4d; Judgement = A + C + N + A*C + A*N + C*N; χ^2 = 2.14; df = 2; p = 0.3428

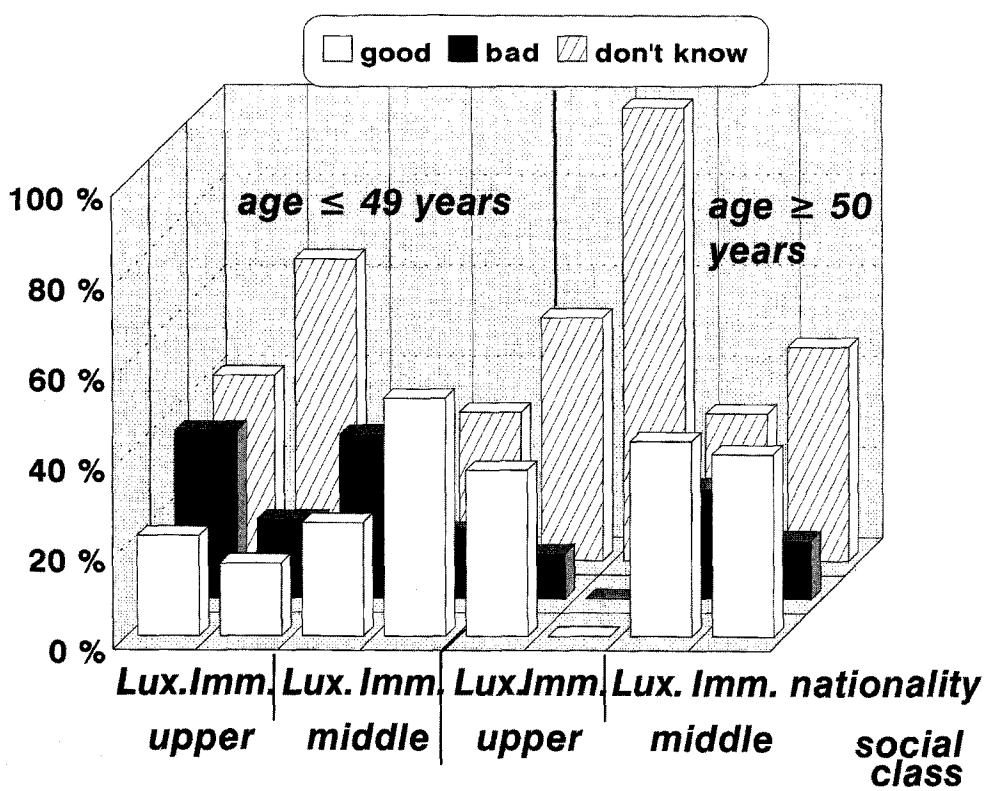

Fig. 1 The probability of responses to psychiatric hospital care in Luxembourg based on model with sociodemographic variables (Lux = Luxembourgians; Imm = Immigrants)

Table 4 Multivariate model of variables describing experience with mentally ill persons or mental illness, with an effect on judgements on psychiatric hospital care in Luxembourg (A = acquaintance with mentally ill persons; C = contact with mentally ill persons during daily business; T = Personal previous treatment because of psychiatric problems)

Hypothesis	Main effects and interactions						$\chi 2$	*df*	*P*
H1	–	–	–				136.17	14	0.000
H2	A	C	T				17.86	8	0.0223
H3a	A	C					25.15	10	0.0051
H3b	A		T				27.92	10	0.0019
H3c		C	T				32.94	10	0.0003
H4a	A	C	T	A*C	A*T	A*T	8.87	2	0.0118
H4b	A	C	T	A*C	A*T		13.31	4	0.0098
H4c	A	C	T	A*C		C*T	9.63	4	0.0472
H4d	A	C	T		A*T	C*T	9.13	4	0.0579
H5	acq			A*C	A*T	C*T			
					A*C*T		0.51	4	0.9728

NOTE: Best fit: H5; Judgement = A + A*C + A*T + C*T + A*C*T; $\chi^2 = 0.51$; $df = 4$; $P = 0.9728$

firmed. Figure 2 shows the probable responses according to this model.

Discussion

Compared to numerous studies on public attitudes towards the mentally ill public attitudes towards mental health care is a rare topic of research in psychiatry. In order to counteract open or veiled negative public attitudes concerning mental health care, it is necessary to know which factors influence them. Our aim was to investigate people's attitudes towards mental health care in a country that is about to take the step of transforming its traditional mental health care system into a community-based care system.

The population of Luxembourg appears to be generally undecided regarding its mental health care. The apparent ignorance of the people regarding most care sectors except inpatient care reflects Luxembourg's hospital-based mental health care system. People's personal and economic interests do not affect very much their assessment of inpatient mental health care. We therefore could not identify residential factors influencing public attitudes towards this mental health sector. Factors that affect public opinion that are of a sociodemographic character, such as nationality, social class and age, suggest that judgements as to the quality of psychiatric inpatient care are deeply entrenched and are characterized by prejudices or traditional beliefs.

On the other hand, experience-based factors, such as an intensified contact with the mentally ill, do not simply lead to a greater sympathy towards their needs for care. This has been proven by many studies on public resistance against community mental health facilities (Tefft et al. 1987; Brockington et al. 1993; Taylor et al. 1984; Solomon and Davis 1984; Bhugra 1989). This is also true with custodial mental health care, because we found in our study that in Luxembourg an intensified contact with the mentally ill or personal treatment experience leads to a greater scepticism about psychiatric inpatient treatment. Furthermore, our results suggest that negative opinions of inpatient care are not primarily expressed by members of

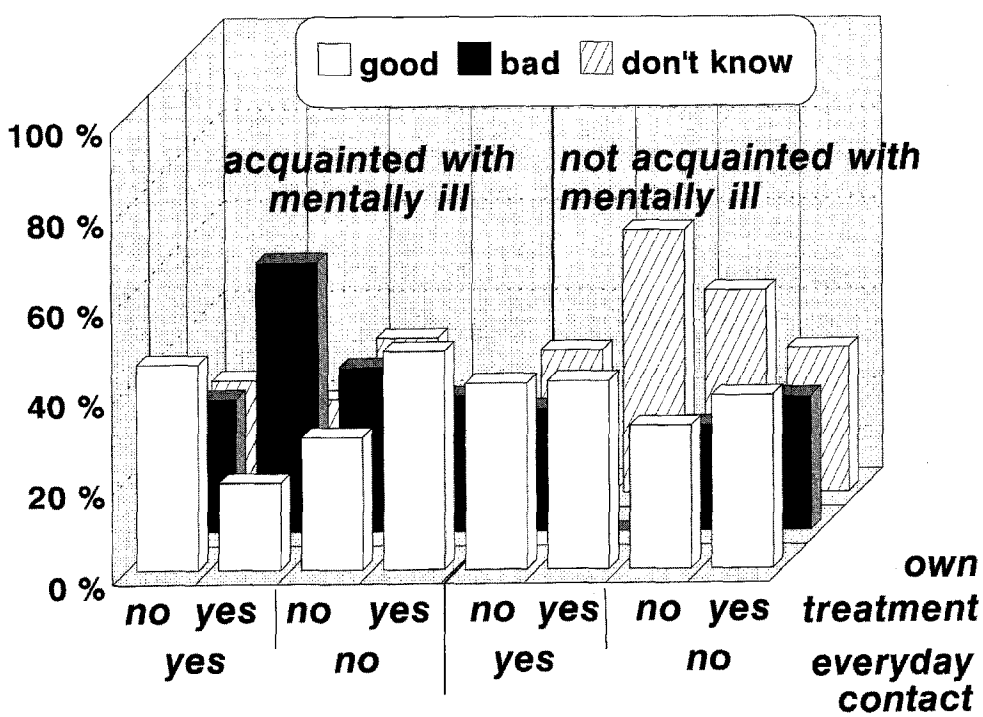

Fig. 2 The probability of responses to psychiatric hospital care in Luxembourg based on model with variables describing personal experience with mentally ill persons or mental illness

the lower classes, the uneducated and elderly people, as we know from the vast majority of studies concerning public attitudes towards the mentally ill (Bhugra 1989), but rather from well-educated and younger residents as in Luxembourg. In contrast to their lesser fear of the mentally ill and their higher tolerance of the needs for care of these patients, as found in many studies on public attitudes in psychiatry (Ojanen 1992; Brockington et al. 1993), our results suggest that younger people, those in higher social classes and those with personal experience with the mentally ill are more likely to express negative attitudes towards inpatient care. Based on attitudinal research we know that there are strong emotional components that make up all personal attitudes. In contrast to the cognitive components of attitude-formation, these emotional aspects make prejudices difficult to change (Marx 1973). One reason for continuing prejudices regarding psychiatric care may simply be ignorance (and therefore fear) of what is happening behind closed asylum, hospital or service doors. People often do not experience the changes and improvements of care, especially if these changes are slight, as in countries with more traditional mental health care such as Luxembourg.

But as our results show, people who are experienced may not base their negative opinion solely on prejudice, but possibly on personal knowledge of treatment conditions.

This leads to two conclusions about strategies for improving public attitudes towards psychiatry. The first one is aimed at wider sectors of society and includes campaigns for a better image of mental health care. In planning future care an attempt is often made to identify residential areas with an "ideal" sociodemographic environment for community mental health care facilities (Taylor et al. 1984; Trute and Segal 1976). Trying to avoid problems by steering clear of population groups or residential areas that are likely to resist community care of the mentally ill in their neighbourhood seems to us to be not a good solution. Deinstitutionalization and the transition to community mental health care need to be backed up with proactive strategies to improve public opinion such as active information campaigns on the background and aims of mental health care reforms.

The reform process as a whole should be accompanied by a campaign to change negative attitudes. Key persons sometimes called "opinion leaders" (Wilmoth et al. 1987), "gate keepers" (Schöny and Grausgruber 1991) or "key community leaders" (Bowen et al. 1978), who act as interpreters or communicators with the public, can be of help in this movement. Also, the incorporation of citizens and neighbours into the management and administration of services is suggested (Tefft et al. 1987).

In this connection one should not underestimate the role of the mass media when aiming for widespread acceptance. Some researchers suggest that the stereotypical rejection of mental health services is the result of a disproportionate emphasis on negative public attitudes by mass media reports on radio, television and in the press (Wilmoth et al. 1987; Tefft et al. 1987).

The other strategy seems to be crucially important in the long run. As our results suggest not all beliefs about mental health care are based on tradition or prejudice. They are also formed by first-hand or personal experience. Thus, one of the most influential factors in creating a better attitude towards mental health care lies in the improvement of the quality of the care itself.

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References

Baron R, Piasecki J (1981) The community versus community care. In: Budson R (ed) New directions for mental health services. Issues in community residential care. Jossey-Bass, San Francisco, pp 63–76

Bhugra D (1989) Attitudes towards mental illness. A review of literature. Acta Psychiatr Scand 80:1–12

Bowen WT, Twemlow SW, Boquet RE (1978) Assessing community attitudes toward mental illness. Hosp Community Psychiatry 29:251–253

Brockington IF, Hall P, Levings J, Murphy C (1993) The community tolerance of the mentally ill. Br J Psychiatry 162:93–99

Christiansen U, Münstermann J (1976) Psychisch Kranke und psychiatrische Versorgung – Meinungen und Erfahrungen der Bevölkerung in Düsseldorf, Essen und Köln. Psychiatr Prax 3:3–15

Cumming E, Cumming J (1957) Closed ranks. An experiment in mental health education. Harvard University Press, Cambridge, Massachusetts

Frey HF, Kunz G, Lüschen G (1990) Telefonumfragen in der Sozialforschung. Westdeutscher Verlag, Opladen

Grizzle JE, Starmer CF, Koch G (1969) Analysis of categorical data by linear models. Biometrics 25:489–504

Hall P, Brockington IF, Levings J, Murphy C (1993) A comparison of responses to the mentally ill in two communities. Br J Psychiatry 162:99–108

Küchler M (1979) Multivariate Analyseverfahren. Teubner, Stuttgart

Langeheine R (1980a) Multivariate Hypothesentestung bei qualitativen Daten. Z Sozialpsychologie 11:140–151

Langeheine R (1980b) Log-lineare Modelle zur multivariaten Analyse qualitativer Daten. Eine Einführung. Oldenbourg, München Wien

Marx R (1973) Psychiatrische Laien sehen ein psychiatrisches Großkrankenhaus. Grafenberg – eine totale Institution? Kölner Z Soziologie Sozialpsychologie 25:350–364

Ojanen M (1992) Attitudes towards mental patients. Int J Soc Psychiatry 38:120-130

Rössler W, Salize HJ (1993) Psychiatrische Versorgung – Leitlinien für die Reformpraxis. Deutsches Ärzteblatt 90:A1 2526–2528

Rössler W, Salize HJ, Häfner H (1993) Gemeindepsychiatrie, Grundlagen und Leitlinien – Planungsstudie Luxemburg. Verlag Integrative Psychiatrie, Innsbruck

Schöny W, Grausgruber A (1991) Psychisch krank – stigmatisiert? In: Meise U, Hafner F, Hinterhuber H (eds) Die Versorgung psychisch Kranker in Österreich. Springer, Berlin Heidelberg New York, pp 291–300

Segal SP, Baumohl J, Moyles EW (1980) Neighbourhood types and community reaction to the mentally ill: a paradox of intensity. J Health Soc Behav 21:345–359

Smith CJ, Hanham RQ (1991) Proximity and the formation of public attitudes towards mental illness. Environ Planning A 13: 147–165

Solomon P, Davis JM (1984) Community attitudes toward residential facilities for psychiatric patients. Psychosoc Rehab J 8: 38–41

Taylor SM, Hall GB, Hughes RC, Dear MJ (1984) Predicting community reaction to mental health facilities. J Am Planning Assoc 50:36–47

Tefft B, Segall A, Trute B (1987) Neighbourhood response to community mental health facilities for the chronically mentally disabled. Can J Community Ment Health 6:37–49

Test MA, Stein LI (1978) Community treatment of the chronic patient: research overview. Schizophr Bull 4:350–364

Trute B, Segal S (1976) Census tract predictors and the social integration of sheltered care residents. Soc Psychiatry 11:153–161

Wilmoth GH, Silver S, Severy LJ (1987) Receptivity and planned change: community attitudes and deinstitutionalization. J Applied Psychol 72:138–145

Wing JK (1993) Social aspects of schizophrenia. Triangle 22: schizophrenia part II:39–45