Epidemiology and Psychiatric Sciences (2013), **22**, 163–168. © Cambridge University Press 2012
doi:10.1017/S2045796012000510

ORIGINAL ARTICLE

Do psychiatric units at general hospitals attract less stigmatizing attitudes compared with psychiatric hospitals?

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Aims. It is often assumed that psychiatric units at general hospitals attract less stigma than do specialized psychiatric hospitals, but so far this has not been examined empirically.

Methods. We conducted a representative population survey in Germany ($n = 2410$) in order to compare attitudes towards psychiatric units and attitudes towards psychiatric hospitals. Two subsamples were presented with identical items concerning either psychiatric units or hospitals. We conducted multinomial logit analyses of answer categories to detect any differences in attitudes.

Results. A majority of respondents held favourable opinions of psychiatric in-patient care at both psychiatric units and psychiatric hospitals. Attitudes towards units and hospitals did not differ meaningfully.

Conclusions. The influence of location on the image of psychiatric care has been over-estimated. We discuss other implications of locating psychiatric care at general hospitals.

Received 3 April 2012; Revised 7 August 2012; Accepted 11 August 2012; First published online 20 September 2012

Key words: Mental health care, population survey, psychiatric hospital, stigma.

Introduction

Recently, this journal published an article discussing whether locating acute wards in the general hospital is an essential element in psychiatric reform (Totman *et al.* 2010). Reviewing the pros and cons of in-patient psychiatric care at general hospitals, the authors mention a number of beneficial effects that have been anticipated when closing (or downsizing) large psychiatric hospitals and establishing psychiatric units at general hospitals: The provision of medical care for psychiatric patients, for example, as well as the accessibility and integration of psychiatric care into local communities are presumably better at the general hospital. Although large psychiatric hospitals might evoke associations of long-term stays and confinement, psychiatric units at general hospitals could nourish the expectation that mental disorders are treated just like other physical disorders (Baker, 1969). This also concerns the stigma of mental illness: It is expected that general hospital units decrease both the stigma experiences of patients, who are integrated into normal medical care instead of being segregated in remote psychiatric hospitals, and the stigma of psychiatric in-patient care itself, which is expected to be viewed more like a 'normal' medical discipline in the context of other medical specialities (Beine, 2005).

On the other hand, there are potential disadvantages of general hospital units compared with psychiatric hospitals. Persons with mental illness could feel more stigmatized when being treated in close proximity to persons suffering from medical disorders, and general hospital units could offer less calm and retreat. However, as Totman and co-workers point out, there is very little evidence examining the potential advantages or disadvantages of general hospital psychiatric care. With regard to stigma, only the patients' experiences of stigma, but not the public image of psychiatric in-patient care have been examined. From the patient perspective, an inconclusive picture emerges. An early study by Angermeyer *et al.* (1987) showed that persons with schizophrenia who were treated in a smaller psychiatric unit located at a

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university hospital perceived more stigma than patients treated in a large psychiatric state-hospital (Angermeyer *et al.* 1987). Contradicting these findings, Verhaeghe and co-workers recently found patients of psychiatric wards at general hospitals feeling less stigmatized and socially rejected compared with patients at state mental hospitals (Verhaeghe *et al.* 2007). A third study from Singapore demonstrated a differential, diagnosis-related effect: persons with schizophrenia felt more stigmatized at a general hospital, while persons with other mental disorders experienced more stigma at a psychiatric state hospital (Chee *et al.* 2005).

If results regarding the patient perspective are inconclusive, comparative findings on the public image of such facilities are completely absent. This is surprising, since a core argument for moving psychiatric in-patient care away from large psychiatric hospitals into smaller general hospital units has always been the expectation that this would reduce the stigma attached to psychiatric care itself (Beine, 2005). After all, at the outset of psychiatric reform the image of psychiatric in-patient care in large psychiatric hospitals was bad: In 1973, for instance, a parliamentary expert commission in Germany characterized psychiatric hospitals as 'crude and sometimes inhuman' (Deutscher Bundestag, 1975; Haug & Rössler, 1999).

Meanwhile, psychiatric units at general hospitals are well established, they provide about 40% of all psychiatric beds in Germany (Arbeitsgruppe Psychiatrie, 2007). We have thus reason to assume that a considerable proportion of the general public is aware of such units, and that public attitudes towards both forms of psychiatric in-patient treatment can be measured and compared. This paper presents results from a large population survey in Germany that simultaneously investigates attitudes towards psychiatric units and psychiatric hospitals. Following the arguments favouring psychiatric units, we hypothesize that attitudes differ with regard to three aspects of psychiatric in-patient care: First, compared with psychiatric hospitals, psychiatric units should be regarded more similar to other medical facilities. Second, effective treatment should be expected more readily in psychiatric units, while, third, long-term stays and confinement should be stronger associated with psychiatric hospitals.

Methods

Survey

During November 2011 and January 2012, we conducted a representative population survey in Germany among adult persons of German nationality (>18 years) living in private households. The sample was drawn using a random sampling procedure with three stages: (1) electoral wards, (2) households and (3) individuals within the target households. Target households within the sample points were determined according to the random route procedure; target persons were selected according to random digits. Informed consent was considered to have been given when individuals agreed to complete the interview. In total, 3763 households were contacted. A total of 2410 persons completed an interview, reflecting a response rate of 64.0%.

Interview

The interview consisted of two parts. In the first part, which is not subject of the present paper, we asked questions related to a case-vignette of a person with either schizophrenia, depression or alcohol dependence, covering illness beliefs, help-seeking recommendations and attitudes towards those affected. These questions were identical for all three vignettes. The second part covered issues unrelated to the case-vignette. Here, respondents randomly received one of two sets of questions: half of the sample answered questions regarding attitudes towards a psychiatric hospital (subsample 1, $n = 1223$), the other half regarding attitudes towards a psychiatric unit at a general hospital (subsample 2, $n = 1187$). To make sure that only respondents who were aware of the existence of psychiatric units did answer the appropriate questions, we asked all respondents in subsample 1: 'Today, besides psychiatric hospitals, there are psychiatric units at general hospitals. Have you ever heard of such units?' A total of 725 persons (61%) answered in the affirmative, and only these were presented with further questions on psychiatric units. This procedure differed between both subsamples, assumed that everybody from subsample 1 was aware of psychiatric hospitals, and introducing both settings to both subsamples would likely have confused respondents. To avoid any bias from this procedure, further analyses were adjusted for socio-demographic variables. Table 1 shows socio-demographic characteristics of both subsamples and of the general population. Chi-square tests showed that subsample 2 (units) was overall younger than subsample 1, other socio-demographic characteristics did not differ significantly. Although including slightly more women and fewer people with longer education, both subsamples can be considered representative of the German population.

Questions covered the three broad aspects of psychiatric in-patient care that were hypothesized to be regarded differentially by the public relative to the location of care, and that had been used in a previous survey in 1990 (Angermeyer, 1994). Similarity of

https://doi.org/10.1017/S2045796012000510 Published online by Cambridge University Press

Table 1. *Socio-demographic characteristics of the population sample*

		Survey 2011	
	Total population 2010[a]	Subsample 1 ($n = 1187$)	Subsample 2 ($n = 725$)
Gender			
Men	48.6	45.6	43.8
Women	51.4	54.4	56.2
Age			
18–25	11.3	8.9	8.6
26–45	31.9	28.1	35.8
46–60	26.9	29.9	28.2
>61	29.9	33.1	27.5
Education[b]			
Unknown/pupil	1.0	0.8	0.4
No schooling completed	4.0	3.4	3.3
8/9 years of schooling	38.5	39.3	34.6
10 years of schooling	29.3	37.5	42.7
12/13 years of schooling	27.1	19.0	19.0
Marital status			
Married	51.9	52.3	54.5
Divorced	9.5	12.6	12.5
Widowed	9.1	12.3	9.7
Single	29.5	22.9	23.4

[a]Data from the Statistical Office Germany.
[b]Only persons ≥20 years, population data for younger persons not available.

psychiatric and medical in-patient care (item 1), effectiveness of treatment (items 2–4), confinement of patients and public security (items 5–7). In the original version, only attitudes towards psychiatric hospitals were addressed. For this study, we replaced the term 'psychiatric hospital' by 'psychiatric units at general hospitals' in subsample 2. Items on psychiatric hospitals and psychiatric units were, except for this denomination, identical. We asked: 'Next, we are interested in your opinion on psychiatric hospitals [psychiatric units at general hospitals]. How strong do you agree with the following statements?' We then offered seven statements that required rating on a five-point Likert-scale with anchors 1= 'agree completely' and 5= 'do not agree at all'. Statements read: (1) 'Psychiatric hospitals [units] are hospitals [units at a hospital] just like any other, except that they provide care for mental disorders instead of medical conditions'. (2) 'Psychiatric hospitals [units] offer anything but treatment. On the contrary, they make you positively ill'. (3) 'At a psychiatric hospital [unit], you do not get treatment, but only sedation'. (4) 'Psychiatric hospitals [units] offer the necessary protection to get over a mental crisis'. (5) 'Psychiatric hospitals [units] have more in common with prisons than with other hospitals [hospital units]'. (6) 'If you are admitted to a psychiatric hospital [unit], it is very difficult to get out again, no matter whether anything is wrong with you'. (7) 'Psychiatric hospitals [units] are necessary to protect society from persons with mental illness'. Other variables used for our analyses included age, gender and educational attainment.

Statistical analysis

Answers on the five-point Likert scales were collapsed into three categories: Agree, undecided and disagree. 'Don't know'-responses were treated as a separate category (Matschinger & Angermeyer, 1996). In order to examine whether respondents answered different with regard to a psychiatric unit compared with a psychiatric hospital, we calculated multinomial logit regressions with each item. To adjust for potential differences between samples for the influence of demographic factors, the regression analyses controlled for respondents' gender, age and educational attainment. Table 2 shows predicted probabilities for each item/answer category calculated with control variables held at their means for the combined sample. To illustrate the magnitude of differences between samples, discrete probability changes were calculated for all items and each response category. A discrete change coefficient is the difference in the predicted probability of a given outcome between subsample 1 and subsample 2. Discrete change coefficients are interpreted

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Table 2. *Public attitudes towards psychiatric units and psychiatric hospitals. Multinomial logit regression. Representative population survey in Germany 2011/2012, n = 1948*

Item (paraphrased)		Predicted percentages			
		Hospital (Subsample 1)	Unit (Subsample 2)	Change	95% CI for change
1. Psychiatric hospitals/units are hospitals/ units just like others	Agree	**66**	**72**	**6**	**2, 10**
	Undecided	17	15	−2	−6, 1
	Disagree	9	7	−2	−4, 1
	Don't know	8	5	−2	−4, 0
2. No treatment, they are making you ill	Agree	15	15	0	−3, 3
	Undecided	21	19	−2	−6, 2
	Disagree	**49**	**53**	**5**	**0, 10**
	Don't know	15	12	−3	−6, 0
3. No treatment, only sedation	Agree	21	24	3	0, 7
	Undecided	25	26	1	−3, 5
	Disagree	43	39	−4	−8, 1
	Don't know	12	11	−1	−3, 2
4. Offer necessary protection	Agree	69	71	2	−2, 6
	Undecided	18	17	−1	−5, 2
	Disagree	5	6	0	−2, 2
	Don't know	7	6	−1	−3, 1
5. More similar to prisons than to other hospitals/units	Agree	16	19	3	0, 7
	Undecided	**23**	**18**	**−5**	**−8, −1**
	Disagree	49	53	4	−1, 9
	Don't know	13	1	−3	−6, 0
6. Difficult to get out again, no matter whether anything is wrong with you	Agree	25	27	2	−2, 7
	Undecided	**27**	**22**	**−5**	**−9, −1**
	Disagree	36	38	3	−2, 7
	Don't know	13	13	0	−3, 3
7. Necessary to protect society from mentally ill persons	Agree	49	53	4	0, 9
	Undecided	26	24	−2	−6, 2
	Disagree	17	17	−1	−4, 3
	Don't know	8	6	−2	−4, 0

Due to rounding, percentages do not always add up to 100. Answers differing significantly ($p < 0.05$) between subsamples are in bold.

as being equivalent to effect sizes. Ninety-five per cent confidence intervals were computed with the delta method using the commands prchange and prvalue for STATA (Freese & Long, 2000; Long & Freese, 2006). To make adjusted predictions comparable with unadjusted survey results, probabilities and discrete changes are multiplied by 100 and can be read as percentages of respondents choosing any answer category.

Results

Table 2 shows the predicted frequencies of each answer category for all seven items, and predicted probability changes between both samples. Generally, a majority of respondents held favourable opinions of psychiatric in-patient care at both psychiatric units and psychiatric hospitals. However, particularly large proportions of negative attitudes surfaced with regard to treatment, where one in five respondents agreed that psychiatric units or psychiatric hospitals offer sedation rather than treatment (item 3), and with regard to confinement, where one in four respondents suspected that it was difficult to get out again from a psychiatric unit or hospital (item 6). Only four of 28 answer categories showed significant differences between samples, and two of these were smaller proportions of 'undecided' respondents in subsample 2, while agreement and

https://doi.org/10.1017/S2045796012000510 Published online by Cambridge University Press

disagreement to the respective item did not show significant differences (items 5 and 6). Respondents being asked about units at general hospitals (subsample 2) more frequently agreed that these were units similar to other hospital units (item 1, probability change 6%), and they disagreed more frequently with the statement that units did not offer treatment but made people ill (item 2, probability change 5%).

Discussion

We found indication for a largely homogeneous image of psychiatric in-patient care, regardless whether it is located at general hospital units or specialized psychiatric hospitals. Only regarding the similarity of psychiatric and other medical facilities and the provision of effective treatment, small differences favouring psychiatric units surfaced, affecting two out of 28 answers. Thus, although 61% of respondents were aware of the existence of psychiatric units at general hospitals, our results indicate that public opinion towards psychiatric in-patient care is only to a very small amount determined by the specific location of this care. Our results question the claim that the location of psychiatric care has decisive influence on its public image, and they weaken the argument that locating psychiatric wards at a general hospital is a means to de-stigmatize mental health care.

These findings have to be viewed in the context of our study's limitations. The sample confronted with statements on psychiatric units was slightly younger and seemed to display a more pronounced opinion, at least regarding two out of seven items where the proportion of undecided respondents was smaller in this subsample, and this could indicate bias due to the preceding filter question. This question excluded all respondents who did not affirm that they had heard of psychiatric units at general hospitals from the following items, and obviously younger persons were more aware of such units. By controlling all analyses for age, education and gender, we addressed this potential bias. Another limitation could be that other aspects of in-patient care not being covered by our study are viewed more favourably with regard to psychiatric units: accessibility for example, and the possibility to receive simultaneous treatment for co-occurring medical conditions. By focussing on the issues of detainment, treatment/sedation and the perception of fundamental differences between psychiatric and medical care, however, our study did cover those aspects that presumably contribute most to the stigma of psychiatric care.

Although our study shows that in view of the general public, the stigma of psychiatric in-patient care is hardly lower at small psychiatric units at general hospitals compared with psychiatric hospitals, it does not allow the conclusion that attitudes towards psychiatric care are unaffected by the way it is organized. A trend analysis using data on attitudes towards psychiatric hospitals showed that over the last 20 years, the image of the psychiatric hospital has markedly improved (Angermeyer *et al.*, submitted for publication). A recent meta-analysis of studies on public attitudes towards psychiatric treatment showed growing public acceptance for psychotherapy, psychotropic medication and for the help offered by psychiatrists (Schomerus *et al.* 2012). So, while the image of psychiatry in general seems to have improved, our study suggests that this improvement is not related to the location of psychiatric in-patient care.

Probably, this is not altogether surprising. In Germany, psychiatric reform has led to a co-existence of psychiatric hospitals and psychiatric units at general hospitals, with units providing about 40% of all in-patient beds. A recent report on the state of psychiatric care ('Psychiatrie Barometer') revealed that differences between both settings are small: With an average number of beds of 158 (hospitals) and 105 (units), the average duration of stay is 25 compared with 23 days (hospitals *v.* units). The distribution of diagnostic groups is very similar between both settings, both work closely together with community psychiatric services and most of them offer out-patient and day-clinic care (Blum *et al.* 2011). Thus, other achievements of psychiatric reform like shorter duration of in-patient stays, the way psychiatric care is delivered and the establishment of community psychiatric services are likely to be of greater importance for the public image of psychiatry than the actual location of this care.

If popular stereotypical beliefs about psychiatric in-patient care are not affected by the location of this care, the question arises whether other dimensions of public attitudes could be influenced by integrating psychiatric care into general hospitals and thus into general medicine. Recently, potential drawbacks of a close proximity of psychiatry to other medical disciplines have been brought up. In a debate surrounding the planned extension of a psychiatric hospital, a spokesman of an association of psychiatry consumers argued: 'A large proportion of our members do not support the view that [by establishing psychiatric units at general hospitals] mental disorders will be de-stigmatized (…). Instead, they consider the resulting risk of a purely somatic view on the aetiology and treatment of mental disorders (…) to be much greater' (Bücher, 2005). Along similar lines, Totman *et al.* (2010, p. 285) argue that 'where…the focus has shifted to a recovery model, establishing schizophrenia

https://doi.org/10.1017/S2045796012000510 Published online by Cambridge University Press

and other disorders as mental illnesses like any other may be seen as a less relevant and desirable goal, especially by professionals other than doctors'. These arguments relate to on an ongoing debate on whether a primarily biomedical image of psychiatric disorders is beneficial for persons with mental illness. With regard to stigmatization, there is growing evidence that biomedical illness models work to the disadvantage of patients (Angermeyer *et al.* 2011), which again questions the rationale behind locating psychiatric wards at general hospitals.

Being conducted in Germany, a country of considerable advancements in psychiatric reform (Priebe, 2012), this study provides important information for other countries, where hospital closure and the establishment of psychiatric units are still an open issue. Decisions on future in-patient mental health care should not simply refer to a de-stigmatizing potential of psychiatric units at general hospitals. Instead, their focus should be on preferences and needs of patients, and the necessities of effective in-patient care, which presumably can be achieved in either setting and are probably more influenced by the available resources and the provision of effective community psychiatric services (Drukker *et al.* 2011) than simply by the location of care.

Declaration of interest

This study was funded by the Fritz-Thyssen-Stiftung (Az. 10.11.2.175). MCA reports receiving lecturer fees from AstraZeneca, Janssen-Cilag, Eli Lilly and Pfizer as well as research grants from GlaxoSmithKline and Lundbeck. All other authors declare no conflicts of interest.

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