ResearchGate

See discussions, stats, and author profiles for this publication at: https://www.researchgate.net/publication/14367305

Community attitudes to mental illness

Article *in* The British Journal of Psychiatry · March 1996

DOI: 10.1192/bjp.168.2.183 · Source: PubMed

CITATIONS
208

READS
2,937

4 authors:

Geoffrey Wolff
Northumberland, Tyne and Wear NHS Foundation Trust
17 PUBLICATIONS **960** CITATIONS

SEE PROFILE

Soumitra Pathare
Indian Law Society
41 PUBLICATIONS **1,251** CITATIONS

SEE PROFILE

Thomas K J Craig
King's College London
303 PUBLICATIONS **8,158** CITATIONS

SEE PROFILE

Julian Leff
King's College London
311 PUBLICATIONS **15,688** CITATIONS

SEE PROFILE

Some of the authors of this publication are also working on these related projects:

Project Academic Research View project

Project ComQuol View project

All content following this page was uploaded by Soumitra Pathare on 06 May 2014.

The user has requested enhancement of the downloaded file.

RC PSYCH
ROYAL COLLEGE OF PSYCHIATRISTS

BJPsych The British Journal of Psychiatry

Community attitudes to mental illness

G Wolff, S Pathare, T Craig and J Leff

The British Journal of Psychiatry 1996 168: 183-190
Access the most recent version at doi:10.1192/bjp.168.2.183

References

Article cited in:
http://bjp.rcpsych.org/cgi/content/abstract/168/2/183#otherarticles

Reprints/ permissions

To obtain reprints or permission to reproduce material from this paper, please write to **permissions@rcpsych.ac.uk**

You can respond to this article at

http://bjp.rcpsych.org/cgi/eletter-submit/168/2/183

Email alerting service

Receive free email alerts when new articles cite this article - sign up in the box at the top right corner of the article or **click here**

Downloaded from

bjp.rcpsych.org on July 15, 2011
Published by The Royal College of Psychiatrists

To subscribe to *The British Journal of Psychiatry* go to:
http://bjp.rcpsych.org/subscriptions/

British Journal of Psychiatry (1996), **168**, 183–190

Community Attitudes to Mental Illness

GEOFFREY WOLFF, SOUMITRA PATHARE, TOM CRAIG and JULIAN LEFF

Background. The baseline findings from a controlled study of the effect of a public education campaign on community attitudes to mental illness are presented.

Method. A census of attitudes to mental illness was conducted in two areas, prior to the opening of supported houses for the mentally ill. Factor analysis of the Community Attitudes toward the Mentally Ill (CAMI) inventory revealed three components: *Fear and Exclusion, Social Control* and *Goodwill.*

Results. The only determinant of *Fear and Exclusion* was having children. The main determinants of *Social Control* were social class, ethnic origin, age, having suffered mental illness and having children. The main determinant of *Goodwill* was educational level. The attitude factors were predictive of respondents' behavioural intentions toward the mentally ill. Respondents with children and non-Caucasians were more likely to object to the mentally ill living in their neighbourhood.

Conclusions. Any intervention aimed at changing attitudes to mentally ill people in the community should be targeted at people with children and non-Caucasians, as these groups are more likely to object.

Community attitudes to mentally ill people have been shown to vary with the sociodemographic characteristics of the population (Cumming & Cumming, 1957; Maclean, 1969; Taylor & Dear, 1981; Bhugra & Scott, 1989; Brockington *et al*, 1993). We were interested in the attitudes of the residents of two streets prior to the opening of group homes for mentally ill people.

This paper presents the factor analysis of an inventory of attitudes toward the mentally ill and its correlation with sociodemographic characteristics of the population. It also examines respondents' anticipated behavioural intentions toward the mentally ill. The accompanying paper reports on knowledge about mental illness and reaction to mentally ill people. These are baseline findings from a longitudinal controlled study looking at the effects of a public education campaign on community attitudes to mental health facilities in the neighbourhood.

Method

West Lambeth Community Care (NHS) Trust has been responsible for implementing the closure of Tooting Bec Hospital. As a part of resettlement of patients, 13 supported group homes have been opened in the past five years.

Prior to the opening of two more houses, one in Herne Hill (in April, 1993) and another in Streatham Hill (in July, 1993) a census of 305 immediate neighbours living on the same street as these houses was carried out in both areas. The target population was identified using the electoral register. As an introduction, a letter was sent to each adult member of the household inviting them to participate. The researchers then went from door to door and asked to interview all adult members of each household regardless of whether they were on the electoral register or not (the electoral register proved to have a considerable amount of incorrect information). At least six attempts were made to reach everybody. If this failed, telephone numbers were obtained from the telephone directory. Despite this if no contact could be made, the respondent was classified as not contactable. The interviews were carried out by three researchers (two psychiatrists and a research psychologist). Prior to the main study, pilot interviews had been carried out to establish inter-rater reliability and each interviewer listened to interviews carried out by the others.

The interview consisted of questions dealing with: (a) demographic data, (b) knowledge of mental illness, (c) reactions towards the mentally ill, (d) knowledge of psychiatric hospital care, (e) knowledge of the shift to care in the community, (f) attitude to community care policy, and (g) opinion about the need for education. (See appendix 1.)

Subjects were administered the 'Community Attitudes to the Mentally Ill' (CAMI) inventory (Taylor & Dear, 1981). This is a 40 statement

Table 1
Components of factors 1 (*Fear and Exclusion*), 2 (*Social Control*) and 3 (*Goodwill*)

Main components of *Fear and Exclusion*[1]: (Loadings of ⩾0.50 on factor 1)	Loading
Locating mental health facilities in residential neighbourhoods does not endanger local residents	0.75
Residents have good reason to resist the location of mental health services in their neighbourhood	−0.72
It is frightening to think of people with mental problems living in residential neighbourhoods	−0.70
Residents have nothing to fear from people coming into their neighbourhood to obtain mental health services	0.69
Having mental patients living within residential neighbourhoods might be good therapy but the risks to residents are too great	−0.66
Locating mental health facilities in a residential area downgrades the neighbourhood	−0.64
I would not want to live next door to someone who has been mentally ill	−0.58
Mental health facilities should be kept out of residential neighbourhoods	−0.58
Residents should accept the location of mental health facilities in their neighbourhood to serve the needs of the local community	0.54
No one has the right to exclude the mentally ill from their neighbourhood	0.54
The mentally ill should be isolated from the rest of the community	−0.52
Main components of *Social Control*: (Loadings of ⩾0.50 on factor 2)	**Loading**
Mental patients need the same kind of control and discipline as a young child	0.65
One of the main causes of mental illness is lack of self-discipline and willpower	0.64
As soon as a person shows signs of mental disturbance, he should be hospitalised	0.61
Anyone with a history of mental problems should be excluded from public office	0.59
There is something about the mentally ill that makes it easy to tell them from normal people	0.52
The best way to handle the mentally ill is to keep them behind locked doors	0.50
Main components of *Goodwill*: (Loadings of ⩾0.50 on factor 3)	**Loading**
We have a responsibility to provide the best possible care for the mentally ill	0.53
We need to adopt a far more tolerant attitude toward the mentally ill	0.53
The mentally ill don't deserve our sympathy	−0.50

1. This factor has an inverse scale.

inventory and the subjects were asked to rate each statement on a five-point scale (strongly agree, agree, neutral, disagree, and strongly disagree). Subjects were also asked to complete a self-report inventory of questions about fear of and behavioural intentions toward mentally ill constructed especially for this study. This was a 10 item questionnaire with a five point response scale (see appendix 2).

Statistical analysis

Analysis was carried out using SPSS (Norusis, 1988). Factor analysis was carried out on the CAMI scale using the maximum likelihood method with pairwise deletion. Tests of relationships of attitudes to sociodemographic factors were carried out using a Student's *t*-test where the characteristic had two categories (e.g. sex) and using one way ANOVA where there were more than two categories (e.g. marital status). Correlations were performed using Kendall's tau-b. Stepwise multiple regression was carried out on factor analysis scores and sociodemographic variables. The effect sizes (the difference in means divided by the population standard deviation) were calculated for associations with *Fear and Exclusion* (s.d. = 0.93), *Social Control* (s.d. = 0.88) and *Goodwill* (s.d. = 0.82). By convention (Cohen, 1988), effect sizes of around 0.2 (85% overlap of scores) are considered small, around 0.5 (67% overlap) are considered medium and around 0.8 (53% overlap) are considered large.

Results

Two hundred and fifteen people (70% of the target population) were interviewed (113/159 (71%) in area 1 and 102/146 (70%) in area 2). A further 90 (30%) were not interviewed, either because they refused (60/305–20%), could not be contacted (21/305–7%) or were unable to cooperate because of health problems or language differences (9/305–3%). Forty-five per cent of respondents were men and 55% were women. The mean age was 37 (s.d. 13, range 18–79 years). CAMI data were incomplete for 23 respondents and hence only data from 192 of the respondents were used in the factor analysis. Overall, our respondents were of a similar sex and ethnic mix to those from the 1991 census data but there is an over-representation of higher social classes and owner occupiers in our respondents (table available from authors).

Table 2
Correlation of *Fear and Exclusion, Social Control* and *Goodwill* with behavioural intention items

	Fear and Exclusion[1] Tau	*Social Control* Tau	*Goodwill* Tau
Would you object to having mentally ill people living in your neighbourhood?	−0.45***	0.29***	−0.23***
Would you be willing to work with somebody with a mental illness?	0.39***	−0.30***	0.24***
Would you invite somebody into your home if you knew they suffered from mental illness?	0.37***	−0.24***	0.22***
If somebody had been a former psychiatric patient, would you have them as a friend?	0.34***	−0.26***	0.18***
Would you avoid conversations with neighbours who had suffered from mental illness?	−0.33***	0.30***	−0.31***
Would you be worried about visiting somebody with a mental illness?	−0.29***	0.29	−0.25***
If somebody who had been a former psychiatric patient came to live next door to you, would you greet them occasionally?	0.23***	−0.23***	0.24***
Would you have casual conversations with neighbours who had suffered from mental illness?	0.20***	−0.26***	0.26***
If somebody who had been a former psychiatric patient came to live next door to you, would you visit them?	0.17**	−0.13*	0.16**

*$P \leq 0.05$; **$P \leq 0.01$; ***$P \leq 0.001$.
1. This factor has an inverse scale.

Factor analysis of attitudes to mental illness

Factor analysis was carried out on the CAMI scale and a scree plot revealed that the data could be adequately represented by extraction of three factors. The three factors extracted accounted for 37.3% of the total variance. Factor 1 accounted for 29.3%, factor 2 for 4.8% and factor 3 for 3.3% of the total variance. Table 1 reports the main components of the three factors. These three factors do not account for much of the variance. Ideally the first three factors should account for over 70% of the variance.

Items which loaded on the three factors were inspected and an attempt was made to identify underlying themes. In factor 1, the main theme underlying the items was to do with fear of the mentally ill and their exclusion from residential neighbourhoods. It loaded heavily on items such as: "Locating mental health facilities in residential neighbourhoods does not endanger local residents"; "Residents have good reason to resist the location of mental health services in their neighbourhood" and "It is frightening to think of people with mental problems living in residential neighbourhoods" (the percentage of respondents who disagreed with the first item and agreed with the second and third were 14%, 15% and 15% respectively). This factor was therefore labelled *Fear and Exclusion* (NB. This is an inverse scale and a more negative value, therefore, indicates greater fear). External validity for *Fear and Exclusion* is supported by a correlation coefficient of Tau = −0.40 ($P < 0.001$) with people's responses to the statement: "I am afraid of people with mental illness" (from the self-report inventory).

In factor 2, the main theme underlying the items was to do with social control of the mentally ill. It loaded heavily on items such as: "Mental patients need the same kind of control and discipline as a young child" (20% of respondents agreed with this item). This factor was therefore labelled *Social Control* (a more positive value indicates greater social control).

In factor 3, the main theme underlying the items was to do with benevolence toward the mentally ill. It loaded heavily on items such as: "We have a responsibility to provide the best possible care for the mentally ill" (95% of respondents agreed with this item). This factor was therefore labelled *Goodwill* (a more positive value indicates greater goodwill).

All three factors, especially *Fear and Exclusion* and to a lesser extent *Social Control* and *Goodwill* had some predictive validity of respondents' own evaluation (in the self-report inventory) of how they would be likely to respond to the mentally ill (see Table 2).

Association of demographic characteristics with factor scores

All three factors (*Fear and Exclusion*, *Social Control* and *Goodwill*) showed associations with sociodemographic factors (see Table 3). Effect sizes for each factor are presented below.

Table 3
Relationship between sociodemographic characteristics and *Fear and Exclusion* (factor 1), *Social Control* (factor 2) and *Goodwill*

	Fear and Exclusion[1]		*Social Control*		*Goodwill*	
	Mean	(s.d.)	Mean	(s.d.)	Mean	(s.d)
Age						
18–29 (n=69)	0.34	(0.71)	−0.29	(0.71)	0.11	(0.77)
30–49 (n=96)	−0.22	(1.04)	−0.11	(0.78)	0.05	(0.77)
50 and above (n=26)	−0.03	(0.76)	0.84	(1.08)	−0.37	(1.05)
P	<0.001		<0.001		<0.05	
Marital status						
Single (n=75)	0.06	(0.91)	−0.20	(0.73)	0.07	(0.90)
Married/cohab (n=92)	0.02	(0.97)	−0.03	(0.91)	0.03	(0.75)
Div/wid/sep (n=24)	−0.21	(0.89)	0.39	(1.06)	−0.20	(0.84)
P	NS		<0.05		NS	
Children in the household						
No children (n=117)	0.20	(0.85)	−0.20	(0.87)	0.01	(0.84)
1 or 2 children (n=52)	−0.30	(0.96)	0.03	(0.78)	−0.01	(0.79)
3 or more children (n=22)	−0.31	(1.02)	0.60	(0.85)	0.12	(0.87)
P	<0.01		<0.001		NS	
Occupational status						
Professional and intermediate (n=106)	0.13	(0.90)	−0.39	(0.66)	0.06	(0.79)
Other (n=85)	−0.15	(0.95)	0.38	(0.93)	−0.04	(0.86)
P	<0.05		<0.001		NS	
Social class						
I + II (n=127)	0.05	(0.91)	−0.35	(0.69)	0.09	(0.76)
III–V (n=62)	−0.08	(0.95)	0.56	(0.91)	−0.13	(0.93)
P	NS		<0.001		NS	
Educational level						
'A' level and above (n=122)	0.08	(0.91)	−0.36	(0.70)	0.17	(0.75)
'O' level and below (n=69)	−0.12	(0.96)	0.51	(0.89)	−0.25	(0.89)
P	NS		<0.001		<0.001	
Time in street						
<1 year (n=44)	0.22	(0.89)	−0.53	(0.61)	0.19	(0.73)
1–5 years (n=51)	0.01	(0.97)	−0.20	(0.80)	0.06	(0.73)
⩾5 years (n=96)	−0.09	(0.92)	0.26	(0.91)	−0.08	(0.90)
P	NS		<0.001		NS	
Ethnicity						
Caucasian (n=143)	−0.00	(0.97)	−0.27	(0.72)	0.03	(0.79)
Asian (n=8)	0.53	(0.55)	0.78	(1.14)	−0.76	(0.40)
Afro-Caribbean (n=28)	−0.04	(0.77)	0.59	(0.98)	−0.01	(1.03)
African (n=12)	−0.10	(1.01)	0.60	(0.86)	0.40	(0.56)
P	NS		<0.001		<0.05	
Knowing somebody mentally ill						
No (n=38)	−0.08	(0.71)	0.23	(0.81)	−0.19	(0.84)
Know somebody (n=153)	0.03	(0.98)	−0.11	(0.88)	0.07	(0.81)
P	NS		<0.05		NS	
Suffered mental illness						
No (n=169)	−0.03	(0.94)	0.01	(0.88)	−0.02	(0.83)
Suffered (n=22)	0.28	(0.82)	−0.47	(0.73)	0.33	(0.67)
P	NS		<0.05		NS	

1. This factor has an inverse scale.

Table 4
Comparison of different scales and factors derived from the CAMI questionnaire and their sociodemographic correlates

Taylor & Dear (1981)[1]	Authoritarianism	Social restrictiveness	Community Mental Health Ideology	Benevolence
	Factor 1 (Factor 4)		Factor 2	Factor 3
	Age	**Age**	Age	Age
	Education	**Education**	Education	Education
	Children	Children	**Children**	Children
	Occupation	Occupation	Occupation	Occupation
	Class	Class	Class	Class
	Female		**Female**	**Female**
	Marital status	**Marital status**	Marital status	Marital status
	Income	Income		
	Tenure	Tenure	**Tenure**	Tenure
Brockington *et al* (1993)[2]	Factor 2 (Authoritarianism)		Factor 1 (Fear/exclusion)	Factor 3 (Benevolence)
	Age		**Acquaintance**	**Acquaintance**
	Acquaintance		**Class**	Class
	Occupational class		Area	Education
	Education			Age
	Children[3]			Area
This study[2]	*Social Control*		*Fear and Exclusion*	*Goodwill*
	Social class		**Number of children[3]**	**Education**
	Ethnic origin			**Asian**
	Age			
	Time in street			
	Number of children			
	Suffered mental illness			

1. Variables are not listed in order of magnitude of effect as a regression analysis was not presented. Variables in bold type had a greater effect on their respective scales than those presented in normal type (e.g. age exerted a greater effect on Social Restrictiveness than on Authoritarianism, Community Mental Health Ideology or Benevolence).
2. Multiple regression analysis with sociodemographic variables are listed in descending order of magnitude of influence with variables with *r* (Brockington *et al*, 1993) or Beta (this study) greater or equal to 0.15 in bold type.
3. Having children was associated with more favourable attitudes in Brockington *et al*'s study and less favourable attitudes in our study.

Fear and Exclusion was associated with: having children under the age of 18 in the household (effect size = 0.55); higher age (effect size = 0.40); and lower occupational status (effect size = 0.30).

Regression analysis revealed that only number of children under the age of 18 in the household (Beta = 0.22, $P = 0.01$) exerted an independent effect with respect to *Fear and Exclusion* (Multiple $R = 0.22$, $F = 9.00$, d.f. = 1, $P < 0.01$).

Social Control was associated with: higher age (effect size = 1.29); lower social class (effect size = 1.03); being of Asian (effect size = 1.19), African (effect size = 0.99) or Caribbean (effect size = 0.98) ethnic origin; lower educational level (effect size = 0.99); having children in the household (effect size = 0.91); having lived in the street for longer (effect size = 0.90); lower occupational status (effect size = 0.87); being divorced, widowed or separated (effect size = 0.67) and knowing somebody with a mental illness (effect size = 0.39).

Regression analysis revealed that: social class (Beta = 0.40, $P = 0.001$); ethnic origin (African: Beta = 0.27, $P = 0.001$; Asian: Beta = 0.19, $P = 0.001$; Caribbean; Beta = 0.18, $P = 0.001$); age (Beta = 0.15, $P = 0.05$); length of time in the street (Beta = 0.20, $P = 0.01$) number of children under the age of 18 in the household (Beta = 0.13, $P = 0.05$); and having suffered from mental illness (Beta = 0.13, $P = 0.05$) exerted an independent effect with respect to *Social Control* (Multiple $R = 0.72$, $F = 24.01$, d.f. = 8, $P < 0.001$).

Goodwill was associated with: lower age (effect size = 0.58); higher educational level (effect size = 0.51); and ethnic origin (Asians showing less *Goodwill* than Caucasians; effect size = 0.96).

Regression analysis revealed that education (Beta = 0.22, $P = 0.01$) and ethnic origin (Asian only) (Beta = −0.16, $P = 0.05$) exerted an independent effect with respect to *Goodwill* (Multiple $R = 0.29$, $F = 8.56$, d.f. = 2, $P < 0.001$).

On the CAMI inventory, respondents with children were more likely than those without to agree with the statements (which loaded on *Fear and Exclusion*): "It is frightening to think of people with mental problems living in residential neighbourhoods" (23% *v.* 11%; $\chi^2 = 9.55$; d.f. = 2; $P = < 0.01$) and "Locating mental health facilities in a residential area downgrades the neighbourhood" (28% *v*11%; $\chi^2 = 12.45$; 2 d.f.; $P = < 0.01$).

On the fear and behavioural intentions items, respondents with children were eight times as likely to agree with the statement "I am afraid of people with mental illness" than those without (24% *v.* 3%; $\chi^2 = 28.02$; d.f. = 2; $P = < 0.001$). Respondents with children more often responded that they would be unlikely "to invite somebody into (their) home if (they) knew they suffered from mental illness" (18% *v.* 5%; $\chi^2 = 10.61$; d.f. = 2; $P = < 0.01$). They more often responded that it would be likely that they would "be worried about visiting somebody with a mental illness" (21% *v.* 8%; $\chi^2 = 11.84$; d.f. = 2; $P = < 0.01$). They more often responded that it would be likely that they would "object to having mentally ill people living in (their) neighbourhood" (11% *v.* 6%; $\chi^2 = 7.28$; d.f. = 2; $P = < 0.05$).

On the CAMI, non-Caucasians were more likely than Caucasians to agree with the statements (which loaded on *Social Control*): "One of the main causes of mental illness is lack of self-discipline and willpower" (20% *v.* 5%; $\chi^2 = 18.95$; d.f. = 2; $P = < 0.001$) and "Mental patients need the same kind of control and discipline as a young child" (41% *v.* 14%; $\chi^2 = 17.23$; d.f. = 2; $P = < 0.001$).

On the behavioural intentions items, non-Caucasians more often than Caucasians responded that they would be likely to "object to having mentally ill people living in (their) neighbourhood" (20% *v.* 4%; $\chi^2 = 13.44$; d.f. = 2; $P = < 0.01$). They more often responded that it would be likely that they would "avoid conversations with neighbours who had suffered from mental illness" (18% *v.* 7%; $\chi^2 = 8.25$; d.f. = 2; $P = < 0.05$).

Discussion

Sources of error and bias

A survey of this kind will invariably tend to select the more cooperative and communicative respondents who may also be more tolerant. It is also possible that the responses are biased by a 'social desirability response set'.

There is a risk of type II errors in detecting small-sized effects (i.e. effect sizes around 0.2) when group sizes fall below 350, therefore there may well be such errors in our data (e.g. in the relationship between marital status and *Fear and Exclusion* and *Goodwill*). However, effects of this magnitude are probably of little practical significance. In most of our analyses there are sufficient numbers (>60 per group) to detect medium sized effects (around 0.5). Taylor & Dear (1981) and Brockington *et al* (1993) used sample sizes of just over 1000 and almost 2000 respectively. The risk of type II errors in their studies is therefore small but they may also have detected minor associations of little practical relevance (e.g. Taylor & Dear's finding of a sex difference).

Attitude factors derived from the CAMI questionnaire

Taylor & Dear (1981) initially proposed four scales: Authoritarianism, Benevolence, Social Restrictiveness and Community Mental Health Ideology. However, factor analysis revealed that there were two factors which each loaded equally across Authoritarianism and Social Restrictiveness (especially factor 1 but also factor 4) and two factors which loaded on Community Mental Health Ideology (factor 2) and Benevolence (factor 3) respectively. Their factor analysis does not, therefore, seem to support a four factor model (see Table 4).

Brockington *et al* (1993) proposed a three factor model similar to Taylor & Dear's but omitting Social Restrictiveness (see Table 4).

Our *Fear and Exclusion*, *Social Control* and *Goodwill* have some affinity with Taylor & Dear's Community Mental Health Ideology, Authoritarianism (and to a lesser extent Social Restrictiveness) and Benevolence respectively and also broadly correspond with Brockington *et al*'s factors 1, 2 and 3 respectively (see Table 4).

Thus, although attitude factors derived from the CAMI are rather imprecise and encompass broad concepts they have a good degree of stability over time and place.

It is important to understand that these factors are not mutually exclusive and people may hold a conflicting range of attitudes, including socially controlling, fearful and benevolent at the same time. This kind of paradox was observed by Somerset Maugham (1938) who wrote:

> "What has chiefly struck me in human beings is their lack of consistency. I have never seen people all of a piece. It has amazed me that the most incongruous traits should exist in the same person and for all that yield a plausible harmony."

Although our three factors accounted for only 37.3% of the variance, this is in keeping with Taylor & Dear's finding that only 42% of the variance could be accounted for in their data by four factors.

Our *Fear and Exclusion*, *Social Control* and *Goodwill* account for 79%, 13% and 9% of the shared variance respectively compared with 39%, 37% and 23% in the equivalent factors in Brockington *et al*'s data. This suggests that fear of the mentally ill and their exclusion from residential areas may have been relatively more important in shaping attitudes in our sample compared with theirs.

The recent wave of media publicity concerning community care and dangerousness in psychiatric patients (especially in areas of London) may also have crystallised attitudes and bonded opinions more closely to underlying emotive issues such as personal safety.

Our data also differed in other important ways from those of Brockington *et al* (see below) and around one-third of our respondents were aware of the facility about to open up on their doorstep. This may have accentuated the 'NIMBY' (not in my back yard) phenomenon. In addition, our population has been exposed to many people, who they believe to be mentally ill, behaving oddly in the street, shouting or approaching them for money.

Relationship between attitudes and sociodemographic variables

Various authors have found that similar sociodemographic factors such as age, social class and education determine attitudes. However, their relative strengths and loadings on the various factors differ. These differences may, in part, be due to the different populations under study. Taylor & Dear's (1981) data, for example, were drawn from a sample of the population of metropolitan Toronto in Canada, whereas Brockington *et al*'s (1993) data were drawn from two communities in the English Midlands in 1989.

Indeed, our two areas of London are certainly not representative of the general population. They contain a disproportionate number of people of higher social class, few elderly and a rich ethnic mix including people of Caribbean, African and Asian origin. Any inferences made from our data about other areas should, therefore, be very tentative.

Our factors were each related to different sociodemographic variables (see Table 4). This provides evidence of their validity. Both Taylor & Dear's and Brockington *et al*'s factors showed considerable overlap. In Brockington *et al*'s analysis all their factors, for example, were associated with occupational class.

We could find no association between gender and either *Fear and Exclusion*, *Social Control* and *Goodwill*. This is similar to the findings of Brockington *et al* but not Taylor & Dear, who did find a sex difference (with females having a more sympathetic attitude). The effect size was, however, small.

Social class and ethnic origin exerted the greatest effect on *Social Control*. This is at odds with Brockington *et al*'s findings where age was the strongest predictor (of their factor 2).

In our analysis, increased age was associated with more *Social Control*. This is a consistent and well documented finding from many previous studies (Taylor & Dear, 1981; Brockington *et al*, 1993). However, in our study its independent contribution was smaller than that found by Brockington *et al*. This may be because our sample had a much smaller proportion of older people and hence the overall influence of this group was diminished.

There is a complex relationship between educational and occupational level and social class, and attitudes. In our study, social class exerted the strongest independent effect on *Social Control* with the higher social classes exhibiting less *Social Control* toward the mentally ill but having no independent association with *Goodwill*. This contrasts with Taylor & Dear's finding that education had the strongest effect on Authoritarianism and Social Restrictiveness (c.f. our *Social Control* factor).

Education exerted the strongest independent effect on *Goodwill* with increasing education being associated with *Goodwill* toward the mentally ill but having no independent association with *Social Control*. Previous studies (Cumming & Cumming, 1957; Brockington *et al*, 1993) have also reported a direct correlation between education and increased tolerance.

It may be that one link between negative attitudes and sociodemographic variables such as social class and educational level is mediated by a lack of knowledge of mental illness. Certainly, from the interviews, there seemed to be a link between a lack of knowledge and negative attitudes toward the mentally ill. Many respondents who reported being afraid of the mentally ill said that they were afraid because they did not know much about mental illness or that they did not know how they would react in various situations. They made comments such as: "I think people need to be told (about new mental health facilities in their area) because it

would prevent them having any fears . . . It is the ignorance I think which is the problem", and: "A lot of people think that being mentally ill means you're a psychopath . . . I'd probably have fears because I don't know what kind of state their minds might be in." Thus 'fear of the unknown' seemed to be important and this may be due to lack of conceptual models of mental illness.

We also found that occupational level had no independent effect either on any of our factors. Higher occupational level has been shown in the past to be related to increased tolerance (Dohrenwend & Ching-Song, 1967; Taylor & Dear, 1981; Brockington *et al*, 1993). Social class, exerted an independent effect on *Social Control* in our study, with the higher social classes appearing more tolerant of the mentally ill. One possible contributing factor to this relationship may be the social desirability response set with respondents of higher social class being more aware of the 'right' answers. However, one might have therefore expected a similar effect on the other factors and there was no such relationship (the same applies to educational level which was related to *Goodwill* but not *Fear and Exclusion* or *Social Control*).

Knowing somebody with mental illness was associated with less *Social Control*. Previously, knowing somebody with mental illness has been found to be associated with both tolerance (Taylor & Dear, 1981; Brockington *et al*, 1993) and intolerance (Gatherer & Reid, 1963; Willcocks, 1968). In our study, however, knowing somebody did not exert an independent effect. Our finding that having suffered from mental illness was associated with more positive attitudes (less *Social Control*) has not previously been reported.

Having children in the household was the only (and a strong) determinant of *Fear and Exclusion*. This is in stark contrast to the findings of Brockington *et al* who found that acquaintance and occupational class were the main determinants of their factor 1. Taylor & Dear also found this but their influence was much weaker. Brockington *et al* (1993) found that having children was weakly associated with more positive attitudes. In our analysis, having more than one child in the household was associated with even greater *Fear and Exclusion*. We feel that this is related to public stereotypes of the mentally ill representing a serious threat to children. One respondent (who had the highest *Fear and Exclusion* score and four children at home) commented: "It's just this fear I've got of people with mental illness . . . I take my little boy to school everyday up and down this road, but if he came to the age where he was old enough I don't think that I'd allow him to walk up and down a road so freely . . . If we had ex-psychiatric patients around, the parents would feel that they'd need to take their child to school to protect them".

An important finding was that having children in the household was predictive of whether or not respondents would say that they would object to the mentally ill in the neighbourhood. Although what people say in response to surveys does not necessarily predict how they will behave, this may well have implications for managing the siting and integration of new facilities.

One of the most striking findings is that of the influence of ethnic origin (with Asians, Caribbeans and Africans showing more *Social Control*). This has not been reported previously. One might postulate that this may be because of lack of knowledge about mental illness or because of different conceptual models. Knowledge of mental illness in different ethnic groups is explored in the accompanying paper.

Conclusions

These findings have implications for mental health professionals who wish to encourage integration of patients in supported houses into the local community. It is the lower socio-economic groups, the least educated, those with children and people from ethnic minorities who have the most negative attitudes toward the mentally ill. Any intervention aimed at changing attitudes, should be targeted at the above groups. An awareness of the mechanisms determining attitudes would be an important step in designing such an intervention.

Appendices, references and authors' details are given at the end of the subsequent paper.

Correspondence: Dr Geoffrey Wolff, MRC Social, Genetic and Developmental Psychiatry Research Centre (Social Psychiatry Section), Institute of Psychiatry, DeCrespigny Park, London SE5 8AF. E-mail: gsw@scpu.mrc.ac.uk