

## A COMPARISON OF THE QUALITY OF LIFE OF SEVERELY MENTALLY ILL PEOPLE IN UK & GERMAN SAMPLES

S. EVANS, P. HUXLEY & S. PRIEBE

### SUMMARY

The improvement of the quality of life of people with a severe mental illness is a key policy objective and an important outcome for clinical services. Drawing on cases assessed using the Lancashire Quality of Life Profile and its German translation (The Berliner Lebensqualitätsprofil), this paper explores the relationship between personal characteristics, objective well-being, subjective well-being and overall well-being. These variables are compared in two large data sets of people with severe mental illness, one from the UK ( $n=1279$ ) and the other from Germany ( $n=386$ ).

The comparison shows that UK cases have significantly lower subjective well-being in almost all life domains (except safety, living situation and employment). UK cases reported slightly but not significantly higher levels of satisfaction with employment but German cases are more often employed than their UK counterparts. The German samples reported substantially better subjective well-being ratings for health, finances, family, leisure and social life. Exploration of the predictors of overall well-being shows that in both countries depression has the effect of reducing subjective well-being scores, except in relation to work (both samples), religion (UK), finance and safety (Germany). Regression analysis confirms that age, depression and objective circumstances make a small contribution to overall well-being but that subjective ratings in individual life domains make the major contribution. The most important individual predictors of overall well-being for the two samples combined include being a victim of crime, depression and satisfaction with leisure, work, health and mental health, family, living situation, finance and social contacts. Factor analysis indicates that the variance in global well-being explained in both samples combined is 36% (31% in the German samples and 38% in the UK sample).

### INTRODUCTION

Improving the quality of life of people with a severe mental illness is a key objective for mental health policy and clinical treatment. On the one hand there has been a considerable growth in interest in quality of life assessment in the health field in general (Bowling, 1991) and the development of instruments for use in mental health services (e.g. the Lancashire Quality of Life Profile (LQOLP), Oliver *et al.* 1996). On the other hand there have been criticisms of the concept and of the instruments used to measure it (Holloway, 1996). In spite of these criticisms the policy agenda has continued to encourage the study of quality of life improvements as an outcome measure for mental health services and significant advances in measurement methodology are being made (Priebe & Oliver 1999).

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The first author of this paper was responsible for the design, construction and implementation of the health and mental health sections of the PSI community survey described in the paper, as well as leading in the current analysis. The second author was responsible for the data analysis and main report of the health and mental health sections of the PSI survey

David Halpern, Ph.D. University Lecturer, Faculty of Social and Political Sciences, University of Cambridge, 7-8 Jesus Lane, Cambridge, CB5 8BA

James Nazroo, Senior Lecturer, Department of Epidemiology and Public Health, University College London, 1-19 Torrington Place, London, WC1E 6BT

Correspondence to Dr Halpern

Recently it has become possible to explore the nature of the quality of life for large numbers of patients in different settings, and across different cultures. Warner has been involved in comparisons of QOL data drawing on community samples from the USA, UK (Warner & Huxley, 1993) and Italy (Warner & Girolamo, personal communication). The present paper sets in a European context data from a number of somewhat smaller community samples in the UK and Germany. Its main purpose is to explore, using the large data sets available to us, the extent to which the underlying structure of the quality of life instrument is similar in different cultures, and what the major determinants of overall subjective well-being are in the different settings. In addition, we aim to establish the extent to which depression contributes to overall well-being.

QOL data from 4 sites in the UK is assessed using the Lancashire Quality of Life Profile (Oliver *et al.* 1996) and compared with a number of samples from Germany, assessed using the German version of the LQOLP. The LQOLP consists of questions on objective circumstances and subjective well-being ratings in 10 life domains (leisure, religion, housing, finances, health, mental health, social activity, family relationships and safety) and subjective global well-being. The only substantive difference between the UK and German versions is that there is no section on religion in the Berlin interview.

### Samples

Both samples consist of people suffering from severe mental illness, mainly schizophrenia. The German cases consist of 5 groups of schizophrenia sufferers ( $n = 386$ ) all from Berlin (Kaiser *et al.* 1997). There were three groups of inpatients; first admissions ( $n = 68$ ) during their first 3 weeks of stay in general hospital; patients with a hospital stay of between 6 months and 2 years ( $n = 76$ ); and patients with a hospital stay of more than 2 years ( $n = 94$ ). There were two outpatient groups from Berlin services: 60 were patients who had previously had a long stay in hospital and needed some social support; and 79 from the University department of Social Psychiatry which provides a comprehensive community care system in a central district of Berlin. Patients received ICD-10 diagnoses for schizophrenia.

Continuing care cases in the community (UKCC) were taken from the open caseloads of health and social services workers. Inclusion criteria for the sample specifies that individuals should have been in treatment for at least two years, be subject to frequent admissions and predominantly have a psychotic diagnosis. Hospital diagnoses (ICD-9) for a sub-sample of these patients ( $n = 317$ ) show that two-thirds had a diagnosis of schizophrenia and 20% a diagnosis of major depression.

## RESULTS

The total number of cases included is 1665, 1279 from the UK community care database, and 386 from Berlin. Table 1 shows the demographic differences between the samples. Ethnicity data on the Berlin sample is not available).

The major demographic contrasts relate to age (Table 1) and employment (Table 2). The Berlin group are significantly younger; 15% (192) of the UKCC group are under 30 compared with 21% ( $n = 80$ ) of the German group. (Chi squared = 8.057,  $df = 2$ ,  $p < .05$ ). This is due

Table 1  
Demographic comparisons between samples

		UKCC	German	Total
Age-group	<30	192 15.2%	80 21.4%	272 16.6%
	30-50	564 44.7%	153 41%	717 43.9%
	>50	505 40%	140 37.5%	645 39.5%
Ethnicity	White	1134 88.7%		1134 88.7%
	Black Caribbean	94 7.3%		94 7.3%
	Black African	4 .3%		4 .3%
	Other	47 3.7%		47 3.7%
Gender	Male	675 53.1%	190 49.2%	865 52.2%
	Female	595 46.9%	196 50.8%	791 47.8%
Marital Status	Married	162 13%	72 19.1%	234 14.4%
	Single	698 55.9%	200 53.2%	898 55.3%
	Other	388 31.1%	104 27.7%	492 30.3%
Diagnosis	Schizophrenia	210 66.2%	382 100%	592 84.7%
	Other	107 33.8%	0 0%	107 15.3%

Table 2  
Social Characteristics

		UKCC	German	Total
Employment Status	Unemployed	1022 83.4%	250 66.5%	1272 79.5%
	Employed	203 16.6%	126 33.5%	329 20.5%
Living Situation	Single	680 54.1%	212 55.2%	892 54.3%
	Partner	578 45.9%	172 44.8%	750 45.7%

Table 3  
Comparison of mean subjective well-being scores

Domain	UKCC n = 379		German n = 386		t	p
	n	mean	n	mean		
Work	96	4.7	311	4.52	-4.43	.000
Unemployed	750	4.6	195	4.38	-4.68	.000
Employed	188	4.86	125	4.72	.96	.337
Leisure	1194	4.5	374	4.90	-2.30	.022
Finance	1160	4.78	373	4.39	-6.71	.000
Living Situation	1181	4.71	378	4.81	-1.40	.162
Safety	1172	4.60	372	4.93	-.42	.677
Family	1137	4.5	308	5.00	-3.95	.000
Social	1162	4.5	376	4.93	-4.20	.000
Health	1167	4.70	378	4.70	-2.83	.005
Mental health	1135	4.5	373	4.51	-3.65	.000
Global well being	1196	4.27	370	4.48	-2.33	.020

to the fact that the Berlin sample are predominantly from acute treatment settings and are entirely schizophrenia sufferers. In addition, they are a more recently acutely ill group and therefore have had a shorter mental illness 'career'. Although more of the German sample are currently married (Chi squared = 14.3,  $df = 2$ ,  $p < .05$ ), it is interesting that the ever-married rate in both samples is very similar (UKCC 44%; Berlin 47%). Both groups also have very similar living situations.

Table 3 shows the mean subjective well-being scores for both samples by domain. In most domains, subjective well-being means for the UKCC cases are significantly lower than the Berlin cases, except in terms of living situation or the closely related safety domain. The UK sample has fewer cases in employment, and reports slightly higher levels of satisfaction in this domain, although the difference is not significant. Nevertheless, comparisons between those in work and out of work in both groups, suggests that the impact of not working is greater in the UK than it is in Germany. There are significant advantages for the Berlin patients in terms of family, health, social and leisure ratings. The most substantial differences are between the finance ratings, with the Berlin patients feeling substantially better off in this area.

One possible explanation is that the Berlin patients are in more active treatment than the UK group and consequently are in receipt of more appropriate or effective social care. Another possibility is that the younger schizophrenia sufferers in the Berlin sample have more intact social and family lives, and that many of the UK sample have suffered greater attrition in these areas over the years.

#### Subjective well-being and demographic variables

There were a number of significant differences in SWB between men and women in the UK samples, but only one in the Berlin samples (Table 3).

Females had higher SWB scores in work and unemployment and this was significant in the UK group, but not in the Berlin samples. Men had significantly higher ratings in the UK

Table 4  
The relationship between subjective well-being and gender

Domain	Group	Comparisons by gender							
		UKCC (n = 1279)				German Cases (n = 386)			
		n	Mean	t	p	n	Mean	t	p
Work	male	502	3.91	-3.48	.001	153	4.50	-.14	.890
	female	464	4.25			158	4.53		
Unemployed	male	396	3.67	-3.58	.000	91	4.28	-.73	.469
	female	352	4.06			104	4.47		
Employed	male	89	4.85	-.12	.906	67	4.78	.63	.532
	female	99	4.87			58	4.64		
Leisure	male	619	4.77	.75	.455	187	4.91	.15	.878
	female	568	4.73			187	4.89		
Finance	male	607	3.78	.07	.943	184	4.42	.26	.792
	female	547	3.77			189	4.37		
Living Situation	male	615	4.68	-1.6	.109	188	4.70	-1.25	.211
	female	559	4.74			190	4.92		
Safety	male	614	5.00	3.05	.002	185	4.72	-2.96	.003
	female	551	4.79			187	5.13		
Family	male	593	4.75	2.66	.008	150	4.94	-.67	.503
	female	538	4.53			158	5.06		
Social	male	606	4.60	-1.10	.271	186	4.95	.29	.774
	female	549	4.68			190	4.92		
Health	male	609	4.58	2.27	.024	187	4.58	-1.79	.075
	female	549	4.43			186	4.81		
Mental Health	male	593	4.24	1.90	.059	188	4.38	-1.60	.110
	female	535	4.07			190	4.65		
Global Well-being	male	626	4.30	.46	.648	187	4.42	-.82	.414
	female	563	4.27			183	4.55		

group in safety, family and health, but the only significant difference in the Berlin group is that women reported higher SWB in respect of safety.

#### Subjective well-being and depression

Because it is widely assumed that depression affects subjective well-being we assessed the extent to which depression scores on the BPRS (Berlin data) and negative affect (UKCC data) influenced the SWB ratings in each life domain.

The two figures (Figures 1 and 2) show that those affected by negative mood do have reduced scores, but that, in common with previous findings (Oliver *et al.* 1996) the subjects remain capable of making distinctions between their scores in different life domains. In the UK sample there is as much variability in this respect as in the non-depressed group. It is interesting that the reduction in subjective well-being score does not apply uniformly to the ratings of work, religion, safety and finance. This suggests that these domains might exert

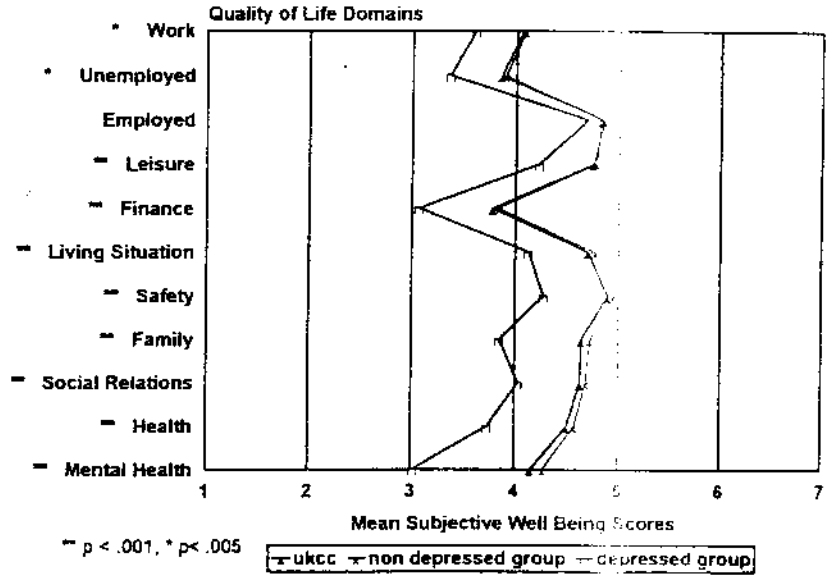


Figure 1. Depression and its effect on subjective well-being: UKCC samples

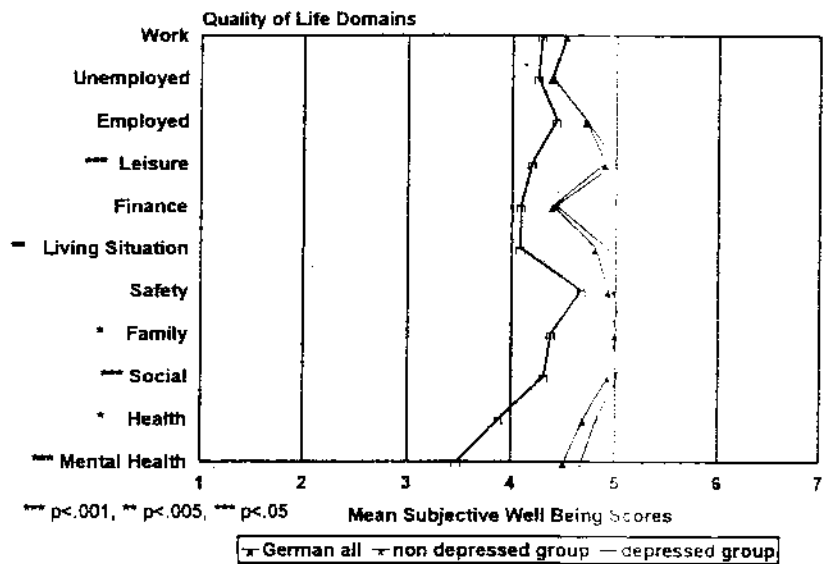


Figure 2. Depression and its effect on subjective well-being: Berlin samples

some kind of protective effect. In order to test the argument that these results may be an artefact of the measurement technique employed, we repeated the analysis using standardised clinical assessments on a different sample of 700 psychotic patients. We found almost identical results, that is the ratings of religion and work were not associated in people who rated highly for depression on the CPRS.

#### Multivariate analysis

Multivariate analyses were used to examine the structure of the instrument and the determinants of well-being in different cultures. One way of assessing the extent to which the instruments are behaving in the same way is to examine the underlying factor structure.

In order to perform this analysis we classified the German groups into inpatients and outpatients, as this allows for comparison between more homogeneous groups. Only those variables available to both data sets were included in the analysis. Religion was excluded from the model. Table 5 shows that the items that emerged from the analysis heavily loaded on the first factor are very similar. The only substantive differences are in leisure and finance. In the German long stay sample leisure is loaded on a second factor rather than the first, and finance does not load on the first factor in either the UKCC data or the acute cases in Germany. A possible explanation is that the circumstances of the long-stay group in Berlin is different in that there is a more or less total insulation that provides the same level of material benefits for patients and the same access to a limited range of leisure activity.

In order to investigate the relationship between overall well-being and other variables we have adopted the structure of the regression model used by Lehman (1983) in his original paper. This analysis introduces personal characteristics ahead of material circumstances and then subjective well-being into a prediction equation for overall well-being. We have added to the model to allow us to explore further the contribution of mood and depression. Overall

Table 5  
Principal Components Factor Analysis

	UKCC	German		
	n = 1279	n = 386		
	F1	In patients Cases > 2 years n = 99	Community and Short stay Cases n = 287	
		F1	F2	F1
General Well Being	.72	.71		.72
Leisure	.73		.76	.71
Finance		.56		
Situation	.65	.65		.67
Safety	.60	.74		
Social	.63	.78		.76
Mental Health	.67	.57		.68
Eigenvalue	2.9	3	1	2.7
% of Variance	42	42	15	41



Table 6  
Hierarchical Regression Analysis

	UKCC	German	Total
Demographic Variables			Aged > 50 Adjusted R <sup>2</sup> = .002
Demographic & Objective Variables	Victim of Crime Having Friends Length of Residence Adjusted R <sup>2</sup> = .016		Victim of Crime Having Friends  Adjusted R <sup>2</sup> = .010
Demographic, Objective & Depression Variables	Depression Victim of Crime Length of Residence Having Friends Adjusted R <sup>2</sup> = .047	Depression  Adjusted R <sup>2</sup> = .015	Depression Victim of Crime  Adjusted R <sup>2</sup> = .034
Demographic, Depression, Objective & Subjective Variables	Leisure Health Work Family Living Situation  Adjusted R <sup>2</sup> = .382	Health Living Situation Leisure Finance  Adjusted R <sup>2</sup> = .310	Health Leisure Living Situation Work Family Finance Social Adjusted R <sup>2</sup> = .359

well-being is rated on the first global question: How do you feel about your life as a whole today? The results are shown in Table 6.

It is perhaps understandable, given the degree of variance to be found in large samples that the amount of variance explained by these regressions is not large. Having said that the general picture is consistent with that reported originally by Lehman (1983) and more recently by Schneider (personal communication) in a sample of working patients. Being old is significantly related to improved overall well-being, but in this model age explains very little of the variance, accounting for an adjusted R<sup>2</sup> value of .002, in the combined sample only. An average of about 1% of the variance is explained by objective variables, in particular having friends and being accused of or a victim of crime. When depression is introduced the average amount of variance explained rises by more than 2%. In the Berlin data the model identifies depression as the sole factor likely to be associated with overall well-being, whereas in the UKCC sample other objective factors are also found to have significant effects. When subjective well-being domain ratings are introduced the total amount of variance explained rises substantially, to 31% in the Berlin data and to almost forty per cent in the UKCC data.

An alternative approach is the ordered regression method advocated by Levitt *et al.* (1990). Using this approach, variables are assigned to predictor sets e.g. personal characteristics, objective conditions and subjective satisfaction with life conditions and are entered into the regression analysis in order. Applying this model to our data achieved identical results for objective and subjective variables as had been attained using Lehman's model. This suggests that objective variables exert more influence on overall well-being than demographic variables and similarly, the effects of subjective variables overwhelm those of any others.

## CONCLUSIONS

The findings here support the view that depression is an important but not dominant influence upon subjective well-being, and that age is also relevant, with greater satisfaction being reported in later life. As in other studies, the effect of depression is to reduce well-being ratings across all life domains, but still permits the individual to distinguish between domains, to the same extent as non-depressed groups. Ratings of employment, religion, safety and finances were not different in depressed and non-depressed groups for instance. One intriguing hypothesis is that being in work, having money, feeling safe or having strong convictions protects one against the impact of depressive mood as well as contributing to overall well-being. The German data showed less variation in the SWB of depressed patients (according to the BPRS) than the UK sample (according to the negative affect score). In a separate analysis using a standardised clinical assessment (the CPRS) administered by trained clinicians, the UKCC results were replicated almost exactly.

The two samples examined in the present paper differ in some demographic respects but are very similar in terms of the internal structure of their well-being ratings according to the results of the factor analysis.

While regression analysis shows that only 36% of the variance in global well-being, is explained by the subjective well-being domain ratings, the results are in line with those published originally by Lehman. In both cases the demographic or personal characteristics of the subjects contributes only a little to global well-being, and the major contribution is made by ratings of subjective well-being in particular life domains. Clearly, there are other determinants of global subjective well-being not assessed by the LQOLP. The new data set from the UK700 study has both personality variables and others such as insight, side-effects and intelligence that might make an independent contribution and explain more of the variance of overall well-being. This will be the subject of a separate paper.

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Sherrill Evans is a Research Fellow and Peter Huxley is Professor of Psychiatric Social Work at the University of Manchester, Department of Psychiatry and Behavioural Sciences, Mathematics Building, Oxford Road, Manchester M13 9PL

Susan Priebe is Professor of Community and Social Psychiatry at St Bartholomew's & Royal London School of Medicine and Dentistry, Department of Psychological Medicine, West Smithfield, London, EC1A 7BE

Correspondence to Sherrill Evans