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Steffi G. Riedel-Heller· Herbert Matschinger · Matthias C. Angermeyer

Mental disorders – who and what might help?

Help-seeking and treatment preferences of the lay public

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Abstract *Background* Research on lay public's attitudes toward the treatment of mental disorders is receiving increasing scientific attention. Most of the surveys on lay public attitudes have used rating approaches. However, in daily life, people are forced to make decisions. Therefore, we used a ranking approach to elucidate preferences of the lay public, aiming to reflect the real life decision-making process. *Objective* We investigated preferences of the lay public regarding sources of help and treatment options in case of mental disorder. *Methods* In the spring of 2001, a representative survey was carried out in Germany (n = 5015). A personal fully structured interview was conducted which started with the presentation of a vignette depicting someone with either schizophrenia or major depression. Respondents were asked to make first and second choices regarding the recommendation of source of help and treatment. Furthermore, socio-demographic characteristics and illness behaviour as possible determinants were assessed and analysed using logistic regression. *Results* Even though most of the people advise professional help, especially from mental health professionals, a large gap remains between evidence-based treatment strategies and public opinion. Psychotherapy is by far the most favoured treatment. In contrast, psychotropic drug treatment was only suggested by the minority for first-choice treatment. Certain beliefs concerning illness and socio-demographic characteristics are associated with specific recommendations regarding source of help and treatment. *Conclusion* The consequences are twofold. First, as mental health professionals are dealing with non-compliance especially to psychotropic drugs, they have to realise that basic beliefs and expectations may play a more prominent role than has been previously assumed. Consequently, they have to put far more effort into what is called psychoeducation. Secondly, public knowledge about mental disorders and their treatment strategies has to be enhanced by working with the mass media and looking for other tailored interventions.

Key words mental illness – public opinion survey – help-seeking – treatment – lay recommendations – depression – schizophrenia

Prof. Dr. med. S. G. Riedel-Heller, MPH (✉) · H. Matschinger · M. C. Angermeyer
University of Leipzig
Dept. of Psychiatry
Johannisallee 20
04137 Leipzig, Germany
Tel.: +49-341/9724-530
Fax: +49-341/9724-539
E-Mail: ries@medizin.uni-leipzig.de

Introduction

Research on lay public's attitudes toward the treatment of mental disorders is receiving increasing scientific attention. Attitudes and belief systems, transmitted by family, kinship and friendship networks, influence the manner in which an individual defines and acts upon symptoms and life crises. Ajzen's theory of planned behaviour may serve as the theoretical background to determine how attitudes and beliefs function in the help-seeking process (Ajzen 1991). The theory postulates that behaviour is a function of salient beliefs, relevant to the behaviour in question. Salient beliefs are the antecedents of attitudes, subjective norms and perceived behavioural control. These are conceptually independent determinants of intention, which may result in concrete action. Subjective norms are composed of normative expectations and the motivation to comply with these expectations. Normative expectations of patients are oriented to the ideas currently prevalent in society. According to this assumption, attitudes of the lay public should play a central part in the patient's decision-making process in the event of experiencing mental distress.

Most of the surveys inquiring about lay public's opinion regarding sources of help and treatment options in case of mental disorder used rating approaches (Angermeyer and Matschinger 1996; Angermeyer et al. 1999;

Jorm et al. 1997, 2000; Lauber et al. 2001), i. e. after presenting a vignette depicting a person with mental illness, individuals were asked to rate, for example, a catalogue of sources of help as helpful or harmful. In the analysis, all proposals were included as equally important. As currently stated by Lauber et al. (2001), this approach includes a major drawback: nothing is known about the priorities and decisions regarding treatment of mental disorders and, therefore, about the preferences of the lay public. However, in daily life, people are forced to act. This definitely involves decision-making (Inglehardt 1998). Therefore, priority-setting is regarded as a more subtle reflection of reality.

In line with this notion, we want to know what sources of help and treatment options Germany's lay public prefers in case of mental disorder. What are the priorities in terms of first and second choices regarding help-seeking and treatment recommendations? Have help-seeking preferences changed over the last years? Are there specific illness beliefs and socio-demographic characteristics which are associated with certain preferences held by the lay public?

Subjects and methods

Sample

During May and June of 2001, a representative survey was conducted in Germany, involving persons of German nationality aged 18 years and older, living in private households. The sample was drawn using a three-stage random sampling procedure with sample points (electoral wards) at the first stage, households at the second, and individuals within the target household at the third. Target households within the sample points were determined according to the random route procedure (i. e. a household was selected randomly as a starting point from where a set route through the area was followed). 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, 5025 interviews were conducted, reflecting a response rate of 65.1 %. As shown in Table 1, the sample is representative of the whole German population aged 18 years and older regarding major socio-demographic characteristics. The field work was carried out by USUMA (Berlin).

Interview

A fully structured face-to-face interview was carried out which began with the representation of a vignette describing a diagnostically unlabelled psychiatric case history. The case history depicted a person suffering from either schizophrenia or major depressive disorder according to DSM-III-R criteria (vignette descriptions published in Dietrich et al. 2004). Before being included in the survey, the texts of the vignettes had been presented to five psychiatrists or psychologists for the purpose of a blind diagnostic allocation. For each of the two disorders, all experts were able to provide the correct diagnosis based on the case histories described in the vignettes.

Following the presentation of the vignette, respondents were asked to label the problem. Their answers were noted down by the interviewer. To inquire about *help-seeking*, a catalogue of sources of help (confidant, psychiatrist, psychotherapist, family physician, self-help group, priest, community nurse/district or community public health department, non-medical practitioner, cure at a spa) was offered, and interviewees were asked about the first choice of help, forcing them to select one of the sources given. Options were always presented in the same order. Afterwards, respondents were asked to make a second-choice decision just in case utilisation of the first recommended source of help did not succeed. This was followed by an assessment of preferred *treatment options*. Again, a catalogue of treatment options (psychotherapy, natural remedies, acupuncture, relaxation, psychotropic drugs, meditation/yoga, ECT) was offered, and interviewees were asked about the first choice of treatment, forcing them to select one of the sources given. Afterwards, respondents were asked to make a second-choice decision just in case utilisation of the first recommended treatment option did not succeed. Aiming to gather information on *beliefs with regard to the aetiology of mental distress*, a catalogue of possible causes had been compiled that included the most important explanations given for the development of mental disorders as well as those offered by the lay public (brain disease, heredity, life events, stress at work/unemployment, broken home, lack of parental affection, lack of will power, immoral lifestyle). Using a five-point Likert scale ranging from "definitely not a cause" to "definitely a cause", respondents could indicate how significant they considered each factor to be. With regard to the prognosis for the disorder described, we suggested five different possibilities: complete cure, complete remission with risk of a relapse, partial remission, chronic stable state, and chronic progressive deterioration. Interviewees were asked to choose one of these categories to indicate their assessment of the prognosis under optimal treatment. Detailed socio-demographic data were collected at the end of the interview.

Table 1 Socio-demographic characteristics of the sample and the total population

	Survey 2001 %	Total population[1] 2000 %
Gender		
Male	43.8	48.3
Female	56.2	51.7
Age in years		
18–25	11.8	9.8
26–45	38.7	37.8
46–60	24.1	23.3
61+	25.4	29.1
Educational attainment		
Pupil	0.3[2]	0.2[3]
No school completed	3.8[2]	2.1[3]
Hauptschule (9 years of school completed)	45.2[2]	49.1[3]
Realschule/POS (10 years of school completed)	32.5[2]	27.5[3]
Fachhochschulreife/Abitur (technical college of higher education/A-levels)	18.1[2]	21.1[3]
Marital status		
Married	55.2	56.5
Divorced	8.9	7.5
Widowed	11.0	9.2
Single	24.8	26.8

[1] Data from the Federal Statistical Office (12/2001) for the population of the whole of Germany aged 18 years and older; [2] For comparison: the data for the population aged 20 years and older from the survey; [3] Data from the Federal Statistical Office for the population aged 20 years and older. There was no information available for persons aged 18–20 years

Analysis

The ranking tasks to select first and second choices of help and treatment method were analysed *descriptively*. To investigate possible determinants of the source of help and treatment recommendation, a

logistic regression analysis was carried out for: (1) the most frequently chosen sources of help, and (2) the most frequently given treatment recommendations applying and a set of explanatory variables (gender, age, diagnosis of the mental disorder depicted in the vignette, problem definition, perceived causes, and prognosis of the mental disorder). The responses to the open question concerning problem definition were noted down verbatim by the interviewers to be coded later using a coding system developed in a prior study which showed a satisfactory reliability (Angermeyer et al. 1999). The logistic regression models were derived at by using STATA software package.

In 1993, a survey was conducted using the ranking approach, but covering the new German *Länder* only (Angermeyer et al. 1999). To explore time trends in help-seeking preferences (first choice), we compared the 1993 survey directly with the current survey data, which were analysed separately for the new German *Länder*.

Results

Preferences in help-seeking

The majority of interviewees recommended turning to a health professional, mainly to mental health professionals. Table 2 summarises the most frequently mentioned first choices and the corresponding second choices regarding depression and schizophrenia. Faced with the symptom description of *schizophrenia*, more than three-fourths (76.7 %) advised that patients should see a health professional as the first choice. Interviewees clearly endorsed seeing a psychiatrist (34.6 %), followed by psychotherapist (24.7 %) and, to a lower degree, the family physician (17.4 %). Almost half of those interviewees who recommended turning to a psychiatrist as the first choice considered the psychotherapist as the second choice (47.9 %). In case of *depression*, the interviewees had far more disparate views on who should provide help. However, the majority, almost two-thirds, recommended turning to a health professional first. Psychotherapists (22.4 %), psychiatrists (21.2 %) and family physicians (20.1 %) were mentioned by roughly the same proportion of interviewees. A large proportion (41.5 %) of those who endorsed the psychotherapist as a first choice recommended the psychiatrist as a second choice. Interviewees who recommended seeing a psychiatrist as the first choice mostly mentioned the psychotherapist as the second choice (42.7 %).

Time trends in help-seeking preferences

Ranking data for comparison are rare. However, in 1993, a survey was conducted using the ranking approach, but covering the new German *Länder* only (Angermeyer et al. 1999). Since the current survey allows analysis of

Table 2 Help-seeking recommendations in case of depression (n = 2516) and schizophrenia (n = 2454), percentages do not add up to 100 % due to multiple responses

Depression				Schizophrenia			
%	First choice	%	Second choice	%	First choice	%	Second choice
22.4	Psychotherapist	41.5	Psychiatrist	34.6	Psychiatrist	47.9	Psychotherapist
		18.3	Self-help group			16.7	Self-help group
		17.7	Confidant			12.8	Family physician
		10.8	Family physician			12.1	Confidant
		4.6	Cure at a spa			5.8	Cure at a spa
21.2	Psychiatrist	42.7	Psychotherapist	24.7	Psychotherapist	56.8	Psychiatrist
		18.6	Self-help group			12.6	Confidant
		15.2	Confidant			12.3	Self-help group
		14.1	Family physician			7.2	Family physician
		6.6	Cure at a spa			5.4	Cure at a spa
20.1	Family physician	26.6	Confidant	17.4	Family physician	32.6	Psychiatrist
		24.4	Psychotherapist			29.0	Psychotherapist
		19.5	Psychiatrist			15.2	Confidant
		11.2	Self-help group			10.3	Cure at a spa
		11.2	Health cure			6.8	Self-help group
16.8	Confidant	29.9	Family physician	8.9	Confidant	26.7	Psychotherapist
		24.9	Psychotherapist			21.7	Self-help group
		16.6	Self-help group			21.2	Psychiatrist
		11.4	Cure at a spa			20.7	Family physician
		10.5	Psychiatrist			4.6	Priest/Vicar
11.2	Self-help group	27.9	Psychotherapist	8.5	Self-help group	28.4	Psychotherapist
		20.8	Confidant			19.2	Psychiatrist
		17.7	Psychiatrist			15.4	Confidant
		16.3	Family physician			14.4	Family physician
		11.0	Cure at a spa			12.0	Cure at a spa

The remaining sources of help were rarely considered as first choices of help: Depression/Schizophrenia: cure at a spa 4.9/3.4 %, community and district department of health 0.7/0.9 %, priest 1.2/0.9 %, nonmedical practitioner 1.4/0.7 %

the data according to the resident status, we compared the 1993 survey regarding help-seeking recommendations (first choice) directly to the current data for the new *Länder*. Over time, the role of the lay support system has diminished, whereas the role of mental health professionals has increased substantially. This holds true for both depression and schizophrenia (see Table 3).

Determinants of attitudes toward help-seeking

Table 4 shows the effect of socio-demographic characteristics and illness beliefs on the first-choice help-seeking recommendations as derived from logistic regression. An important determinant found was the *problem definition*. If the scenario depicted in the vignettes was defined by the interviewees as psychiatric illness, they were significantly more likely to endorse mental health professionals (psychiatrists, psychologists) as compared to those who did not relate the problem to a psychiatric illness. In contrast, the chance of recommending a confidant as the primary source of help was reduced by 50 % for those defining the problem as psychiatric illness. As already suggested in Table 2, it is of importance whether symptoms of *depression or schizophrenia* were presented. For depression (compared to schizophrenia as reference group), individuals are more likely to recommend the family physician and a confidant as the first source of help and less likely to recommend a psychiatrist. Furthermore, the *perceived cause of mental distress* influences the decision about whom to ask for help. If the problems were attributed to biological factors like brain disease or heredity, the lay support system (confidant, self-help group) was significantly less likely to be endorsed. In the same way, the psychiatrist was significantly more likely to be recommended when brain disease was assumed to be the cause of distress. In case of psycho-social stressors (life event, stress at work/unemployment) as perceived causes of distress, a confidant was more likely to be mentioned as the first source of help. If stress at work was seen as a cause of the problem,

Table 3 Help-seeking recommendations (first choice) in case of depression and schizophrenia in 1993 and 2001, new German Länder only (the five sources of help mainly considered)

	Schizophrenia		Depression	
	1993 (n = 1057) %	2001 (n = 490) %	1993 (n = 498) %	2001 (n = 520) %
Health professionals				
Psychiatrist	28.9	38.4	10.4	26.9
Psychotherapist	10.3	16.1	9.8	17.5
Family physician	20.8	24.9	25.7	24.4
Lay support system				
Confidant	23.2	9.8	34.7	16.0
Self-help group	11.8	7.5	13.5	8.6

Table 4 Effect of socio-demographic characteristics and illness beliefs on help-seeking recommendations (first choice): logistic regression models (n = 4168), statistical significant effects are marked in bold

	Psychotherapist		Psychiatrist		Family physician		Confidant		Self-help group	
	OR	95 %CI	OR	95 %CI	OR	95 %CI	OR	95 %CI	OR	95 %CI
Gender (female)	0.935	0.808–1.081	1.123	0.975–1.294	1.109	0.945–1.302	0.910	0.754–1.098	0.939	0.762–1.156
Age in years	**0.994**	**0.990–0.998**	1.003	0.998–1.007	**1.013**	**1.008–1.017**	**0.983**	**0.978–0.989**	1.002	0.996–1.009
Education	0.937	0.853–1.029	**1.125**	**1.026–1.234**	**0.872**	**0.783–0.971**	**1.166**	**1.038–1.311**	0.989	0.864–1.132
Mental disorder (depression)	0.894	0.764–1.045	**0.676**	**0.581–0.786**	**1.223**	**1.029–1.454**	**1.481**	**1.204–1.822**	1.130	0.902–1.414
Definition as psychiatric illness	**1.295**	**1.102–1.523**	**1.410**	**1.202–1.653**	0.952	0.802–1.130	**0.580**	**0.479–0.703**	0.927	0.744–1.155
Perceived causes										
Brain disease	**1.069**	**1.002–1.141**	**1.303**	**1.220–1.390**	0.993	0.925–1.067	**0.750**	**0.692–0.812**	**0.850**	**0.777–0.930**
Heredity	1.011	0.950–1.076	**1.119**	**1.052–1.190**	1.016	0.948–1.089	**0.853**	**0.788–0.923**	**0.915**	**0.837–0.999**
Life event	1.066	0.978–1.161	1.071	0.988–1.162	**0.875**	**0.800–0.956**	**1.151**	**1.027–1.289**	0.974	0.864–1.097
Stress at work/unemployment	0.966	0.889–1.050	**0.899**	**0.830–0.973**	**1.123**	**1.030–1.234**	**1.139**	**1.021–1.271**	0.982	0.873–0.105
Broken home	**1.095**	**1.020–1.175**	1.014	0.947–1.086	0.942	0.872–1.017	0.934	0.853–1.022	1.047	0.947–1.157
Lack of parental affection	**1.122**	**1.041–1.211**	0.993	0.922–1.070	**0.862**	**0.793–0.937**	1.015	0.923–1.117	1.000	0.899–1.114
Lack of will power	0.994	0.932–1.061	0.943	0.885–1.004	0.998	0.929–1.071	1.020	0.939–1.108	1.114	1.014–1.223
Immoral lifestyle	**0.915**	**0.856–0.978**	0.987	0.926–1.053	1.030	0.956–1.108	1.016	0.932–1.108	1.054	0.960–1.158
Bad prognosis if treated	1.012	0.921–1.111	1.056	0.965–1.155	0.947	0.855–1.050	1.005	0.889–1.137	0.946	0.827–1.082
Pseudo-R^2	0.0148		0.0598		0.0230		0.0957		0.0173	

the family physician and a confidant were more likely to be endorsed and not a psychiatrist. In case of a life event, interviewees were more likely to suggest turning to a confidant and less likely to recommend turning to a family physician. If the problems were attributed to problems within the socialisation of an individual (broken home, lack of parental affection), the lay public was more likely to suggest a psychotherapist. Finally, in case of lack of parental affection, respondents were less likely to suggest consulting the family physician.

Regarding basic *socio-demographic indices*, it has been shown that the respondents' age and education had a significant influence on the help-seeking recommendations. Older individuals were more likely to recommend turning to the family physician. In contrast, they were less likely to recommend turning to a psychotherapist or to a confidant. Individuals with higher educational attainment were more likely to recommend confidants and psychiatrists and less likely to suggest family physicians.

Preferences in treatment

Table 5 shows first- and second-choice treatment recommendations. A clear-cut finding is that psychotherapy was most frequently recommended as the primary treatment option. This holds true for both mental disorders depicted in the vignettes. However, it was slightly more pronounced for schizophrenia (64 %) than for depression (53 %). In contrast, psychotropic drugs were considered as first-choice treatment for schizophrenia by 14.7 % and for depression by 10.6 % of the interviewees.

Taking a closer look at the treatment recommendations for *schizophrenia*, the following picture emerges: almost two-thirds primarily suggested psychotherapy. Should this fail, half of these interviewees (52.2 %) recommended psychotropic drugs and 27.6 % relaxation. For the relatively small proportion of those who endorsed psychotropic drugs (14.7 %), the predominant second choice was psychotherapy (71.1 %).

In case of *depression*, half of the interviewees (53.7 %) primarily recommended psychotherapy. If this should fail, psychotropic drugs (36.8 %) and relaxation (35.7 %) were suggested. Relaxation was recommended primarily by 18.3 % together with meditation/yoga (39.5 %) and psychotherapy (29.9 %) as the second choice. Every tenth interviewee (10.6 %) suggested natural remedies as the first treatment choice, and relaxation (36.9 %) and psychotherapy (27.5 %) were the most frequently mentioned categories if this should fail. Natural remedies were as popular as first treatment options as psychotropic drugs (10.6 %). Those who endorsed psychotropic

Table 5 Treatment recommendations in case of depression (n = 2453) and schizophrenia (n = 2401), percentages do not add up to 100 % due to multiple responses

Depression				Schizophrenia			
%	First choice	%	Second choice	%	First choice	%	Second choice
53.7	Psychotherapy	36.8	Psychotropic drugs	64.7	Psychotherapy	52.2	Psychotropic drugs
		35.7	Relaxation			27.6	Relaxation
		15.2	Natural remedies			9.8	Natural remedies
		7.3	Meditation/Yoga			5.5	Meditation/Yoga
		3.2	Acupuncture			3.1	Acupuncture
18.3	Relaxation	39.5	Meditation/Yoga	14.7	Psychotropic drugs	71.1	Psychotherapy
		29.9	Psychotherapy			9.5	Relaxation
		19.3	Natural remedies			7.2	ECT
		6.0	Psychotropic drugs			6.9	Natural remedies
		3.8	Acupuncture			4.9	Meditation/Yoga
10.6	Natural remedies	36.9	Relaxation	10.8	Relaxation	34.1	Psychotherapy
		27.5	Psychotherapy			31.8	Meditation/Yoga
		12.9	Psychotropic drugs			14.7	Psychotropic drugs
		11.0	Acupuncture			12.4	Natural remedies
		9.0	Meditation/Yoga			3.9	ECT
10.6	Psychotropic drugs	65.6	Psychotherapy	5.1	Natural remedies	32.8	Relaxation
		13.9	Relaxation			19.7	Psychotropic drugs
		7.7	Natural remedies			18.0	Psychotherapy
		5.4	ECT			13.1	Acupuncture
		5.0	Meditation/Yoga			12.3	Meditation/Yoga
3.8	Meditation/Yoga	38.3	Relaxation	2.0	Meditation/Yoga	32.7	Relaxation
		25.5	Psychotherapy			24.5	Psychotherapy
		22.3	Natural remedies			12.2	Natural remedies
		5.3	Acupuncture			12.2	Psychotropic drugs
		5.3	ECT			10.2	Acupuncture

The remaining treatment options were rarely considered as first choice: Depression/Schizophrenia: acupuncture 2.2/1.9 %, ECT 0.6/0.7 %

drugs mainly suggest psychotherapy as the second choice (65.6 %).

Determinants of attitudes towards treatment

The same set of socio-demographic characteristics and illness beliefs that were examined regarding their effect on help-seeking recommendations is used to explore possible determinants of first-choice treatment recommendations (see Table 6). Again, *problem definition* was found to be an important determinant. If interviewees recognised the scenario depicted in the vignettes as psychiatric illness, they were significantly more likely to endorse psychotherapy as compared to those who did not relate the problem to a psychiatric illness. The chance of advising relaxation, natural remedies or meditation as primary treatment was substantially lowered when the problem was defined as mental illness. For *depression* (compared to schizophrenia as reference group), natural remedies and meditation/yoga were more likely to be recommended. In case of depression compared to schizophrenia, the chance of suggesting psychotherapy was significantly reduced. *Perceived cause of mental distress* influences the treatment preferences in the following way: if the problems were attributed to brain disease, psychotherapy and psychotropic drugs were more likely to be recommended, whereas relaxation and meditation/yoga were less likely to be suggested. If a genetic component of the disease was assumed, psychotropic drugs were more likely to be recommended, whereas relaxation was seen as less helpful. In case of life events as perceived cause of distress, the chance of recommending psychotherapy increased. In case of stress at work as perceived cause of disease, relaxation and natural remedies were more likely to be endorsed, whereas psychotropic drugs were less likely to be recommended. Interviewees who regarded a broken home situation as the cause of distress were more likely to suggest psychotherapy and less likely to recommend natural remedies and meditation/yoga. If lack of will power was assumed, relaxation and natural remedies were more likely to be recommended. Likewise, psychotherapy was less likely to be suggested. The same holds true for immoral lifestyle: psychotherapy was less likely to be suggested. In this case, natural remedies and psychotropic drugs were more likely to be recommended.

If the anticipated *prognosis* was bad, psychotherapy was more likely to be recommended, whereas natural remedies were less likely to be suggested. Basic *socio-demographic characteristics* are associated with treatment recommendations. Female interviewees were more likely to suggest psychotherapy and less likely to recommend psychotropic drugs and meditation/yoga. Older individuals were more likely to suggest natural remedies and less likely to recommend meditation/yoga. Interviewees with higher educational attainment were more likely to recommend meditation/yoga and less likely to recommend natural remedies.

Table 6 Effects of socio-demographic characteristics and illness beliefs on treatment recommendations (first choice): logistic regression models (n = 4144), statistical significant effects are marked in bold

	Psychotherapy		Relaxation		Natural remedies		Psychotropic drugs		Meditation/Yoga	
	OR	95 %CI	OR	95 %CI	OR	95 %CI	OR	95 %CI	OR	95 %CI
Gender (female)	**1.145**	**1.006–1.302**	1.024	0.854–1.227	0.995	0.787–1.257	**0.765**	**0.632–0.926**	**0.661**	**0.448–0.976**
Age in years	0.998	0.994–1.002	0.999	0.994–1.005	**1.007**	**1.000–1.014**	1.002	0.996–1.008	**0.985**	**0.973–0.997**
Education	1.057	0.972–1.149	1.076	0.959–1.208	**0.808**	**0.690–0.947**	0.888	0.781–1.009	**1.356**	**1.069–1.718**
Mental disorder (depression)	**0.669**	**0.582–0.768**	1.328	1.091–1.618	**2.038**	**1.564–2.656**	1.031	0.838–1.270	**1.546**	**1.000–2.390**
Definition as psychiatric illness	**1.550**	**1.351–1.778**	**0.613**	**0.510–0.737**	**0.628**	**0.496–0.796**	1.212	0.973–1.510	**0.467**	**0.314–0.695**
Perceived causes										
Brain disease	**1.122**	**1.059–1.188**	**0.750**	**0.694–0.810**	0.909	0.820–1.008	**1.314**	**1.195–1.446**	**0.801**	**0.676–0.949**
Heredity	0.965	0.913–1.021	**0.906**	**0.839–0.978**	0.974	0.880–1.079	**1.254**	**1.148–1.371**	0.969	0.820–1.146
Life event	**1.134**	**1.054–1.221**	0.955	0.862–1.057	0.883	0.773–1.009	0.931	0.838–1.035	0.941	0.754–1.176
Stress at work/unemployment	1.010	0.938–1.086	**1.118**	**1.008–1.239**	**1.229**	**1.067–1.416**	**0.808**	**0.727–0.898**	0.947	0.760–1.181
Broken home	**1.137**	**1.068–1.210**	**0.867**	**0.796–0.945**	**0.846**	**0.756–0.947**	1.040	0.947–1.142	0.880	0.731–1.060
Lack of parental affection	1.029	0.962–1.100	0.943	0.860–1.034	1.009	0.896–1.137	0.916	0.827–1.016	1.343	1.100–1.639
Lack of will power	**0.893**	**0.843–0.947**	**1.141**	**1.053–1.236**	**1.179**	**1.060–1.311**	0.990	0.908–1.079	1.019	0.857–1.211
Immoral lifestyle	**0.886**	**0.836–0.940**	1.017	0.936–1.105	**1.170**	**1.054–1.299**	**1.116**	**1.023–1.216**	1.034	0.867–1.234
Bad prognosis if treated	1.088	**1.001–1.182**	**0.888**	**0.789–0.999**	0.955	0.824–1.107	1.021	0.904–1.153	0.848	0.653–1.101
Pseudo-R^2	0.0374		0.0714		0.0633		0.0648		0.0704	

Discussion

Our most recent representative survey reveals attitudes and beliefs of the German lay public concerning sources of help and treatment recommendations in case of mental disorder. The main findings can be summarised as follows: (1) health professionals, especially mental health professionals, are the most frequently suggested primary source of help. A change in attitudes over the last years toward seeking professional help can be observed; (2) in the eyes of the public, psychotherapy is the most favoured treatment, suggested by one-half to two-thirds of the interviewees as first-choice treatment recommendation. In contrast, psychotropic drug treatment was suggested by only every seventh to tenth person as first-choice treatment. However, should psychotherapy fail, a substantial part of the interviewees considered psychotropic drugs as second-choice treatment; (3) Certain illness beliefs and socio-demographic characteristics are associated with specific recommendations regarding the source of help and treatment. Regarding the consequences, one of the most relevant findings is that the conceptualisation of the distress depicted in the vignettes as mental disorder has a major impact on the source of help and treatment advised. If a mental disorder is assumed, mental health professionals are more likely to be recommended. In a way, this mirrors the treatment options either preferred or rejected: people are more likely to recommend psychotherapy and less likely to suggest relaxation, natural remedies or meditation/yoga. However, psychotropic drug treatment, which is an integral component of psychiatric standard treatment, is an exception. Even if people define the problem as mental illness, they are not more likely to advise drug treatment.

Seeking professional help

Most of the people recommended seeking professional help, especially with mental health professionals in case of mental disorder. This sounds trivial. However, earlier surveys employing rating approaches came to rather different results. They outlined the role of the lay support system as a source of help (Jorm et al. 1997, 2000; Angermeyer et al. 1999, 2001; Ying 1990). If professional help was considered, the family physician was perceived as the primary source of help (Priest et al. 1996). Psychiatrists and, even more so, psychotherapists were considered as much less important.

Are these differences solely due to methodological differences (rating vs. ranking)? Ranking data for comparison are rare. However, in 1993, a survey was conducted using the ranking approach (Angermeyer et al. 1999). A comparison to current data indicates that the role of the lay support system has clearly diminished, whereas the role of the mental health professionals has increased substantially. This holds true for depression and schizophrenia. A change in attitudes over time toward seeking professional help can be observed. Among the explanations for this phenomenon may be the following: (1) an increasing focus on community psychiatric care makes services more visible for the public; for example, in Germany, the number of office-based psychiatrists steadily increased to 4750 in 2000 (Bauer et al. 2001); and (2) increased mental health literacy may play a role. The public seems to be better informed. People of public interest have started to out themselves when suffering from depression, e. g. as has recently been the case with the well-known German soccer star, Sebastian Deisler.

Public expectations differ from evidence-based psychiatric treatment

Non-compliance to treatment, especially to drug treatment, is a major issue in the daily work of psychiatrists with their patients. What kind of treatment do patients and their social network really expect? According to our results, most of the interviewees would recommend psychotherapy as first-choice treatment for schizophrenia more than for depression (64.7 % vs. 53.7 %). In contrast, psychotropic drug treatment is recommended as first-choice treatment by a remarkably lower number of interviewees, for schizophrenia – probably due to the different symptom quality – slightly more (14.7 %) than for depression (10.6 %). For depression, relaxation (18.3 %) was suggested nearly twice as often as drug treatment and natural remedies as often as drug treatment. As found in earlier national and international surveys, there is a large gap between the state of the art in psychiatric treatment and public opinion (Angermeyer and Matschinger 1996; Jorm et al. 1997; Lauber et al. 2001). Even if the results are not directly comparable with a survey conducted in 1990 in the western part of Germany – since a rating approach was used – they point in the same direction. Earlier work inquired in detail about the reasons for this gap between the state of the art in psychiatric treatment and public opinion (Angermeyer and Matschinger 1996). It has been shown that the public image of psychotherapy is largely determined by popular views on psychoanalysis, which is perceived as revealing underlying problems, hence tackling the root of the problem. On the other hand, public opinion about psychotropic drug treatment seems to be influenced by characteristics associated with tranquillizers (sedative effect, the fear of addiction). In contrast to psychotherapy, which is largely viewed as causal treatment, psychotropic drugs represent a symptomatic treatment only, repressing underlying problems. A more recent baseline survey accompanying a programme informing about depression and preventing suicide in a German city revealed that 80 % of the population considered antidepressants to be addictive, and 69 % were convinced that their use would lead to personality change (Althaus et al. 2002).

Study limitations

Issues of limitation concern the lack of information about primary experience of interviewees with mental illness and the lack of information about their own health status, which is known to influence attitudes toward help-seeking and treatment. However, this was not the focus of the survey. Since the survey is representative, it includes per definition a number of individuals affected by mental disorders.

Further limitations concern the catalogue of sources of help and treatment recommendations. Options were always presented in the same order to the interviewees. The list order might have influenced the choices made. Unfortunately, we cannot comment on this effect since we did not randomly vary the list order of helping sources and treatment options. This point should be thoroughly considered when conducting further surveys.

Many odds ratios in Tables 4 and 6 are of modest size and their significance may be partly due to the large sample size. This might jeopardise the generalisation of some of the findings with regard to an evaluation of their public health importance.

Conclusions

Even if most people advise professional help, especially from mental health professionals, a large gap remains between evidence-based treatment strategies and public opinion. This very consistent constellation – over time and across national borders – has two major implications. *First,* mental health professionals have to recognise this constellation and, consequently, they have to put more effort into what is called psychoeducation. Mental health professionals tend to link non-compliance to drug treatment to the illness. However, we might have to realise that basic beliefs and expectations about what helps may play a more prominent role than previously thought.

Secondly, public knowledge about mental disorders and their treatment strategies needs to be enhanced. Psychiatry has much to offer to people in need. Instead of leaving the media with spectacular cases mostly reinforcing stereotypes, mental health professions should work together with the media to distribute scientific knowledge about symptoms, causes and management of mental disorders (Angermeyer and Schulze 2001; Hoffmann-Richter et al. 2003). Other ways to improve mental health literacy include, for example, the introduction of a Mental Health First Aid Training which is successfully used in Australia (Kitchener and Jorm 2002). However, the issue should be brought up early in the course of people's lives. Here, school projects dedicated to mental health issues appear especially promising (Schulze et al. 2003).

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