ORIGINAL PAPER



EPA guidance on improving the image of psychiatry

A. M. Möller-Leimkühler¹ · H.-, J. Möller¹ · W. Maier² · W. Gaebel³ · P. Falkai¹

Received: 8 January 2016 / Accepted: 28 January 2016 / Published online: 13 February 2016 © Springer-Verlag Berlin Heidelberg 2016

Abstract This paper explores causes, explanations and consequences of the negative image of psychiatry and develops recommendations for improvement. It is primarily based on a WPA guidance paper on how to combat the stigmatization of psychiatry and psychiatrists and a Medline search on related publications since 2010. Furthermore, focussing on potential causes and explanations, the authors performed a selective literature search regarding additional image-related issues such as mental health literacy and diagnostic and treatment issues. Underestimation of psychiatry results from both unjustified prejudices of the general public, mass media and healthcare professionals and psychiatry's own unfavourable coping with external and internal concerns. Issues related to unjustified devaluation of psychiatry include overestimation of coercion, associative stigma, lack of public knowledge, need to simplify complex mental issues, problem of the continuum between normality and psychopathology, competition with medical and non-medical disciplines and psychopharmacological treatment. Issues related to psychiatry's own contribution to being underestimated include lack of a clear professional identity, lack of biomarkers supporting clinical diagnoses, limited consensus about best treatment options, lack of collaboration with other medical disciplines and low recruitment rates among medical students. Recommendations are proposed for creating and representing a positive self-concept with different components. The negative image of psychiatry is not only due to unfavourable communication with the media, but is basically a problem of self-conceptualization. Much can be improved. However, psychiatry will remain a profession with an exceptional position among the medical disciplines, which should be seen as its specific strength.

 $\begin{tabular}{ll} Keywords & Stigma \cdot Self-stigma \cdot Professional identity \cdot \\ Biopsychosocial models \cdot Self-marketing \cdot Recruitment of \\ medical students \\ \end{tabular}$

Introduction

Despite the fact that psychiatry has immensely improved in the past decades with regard to concepts of mental disorders, diagnostic and scientific standards, treatment skills, treatment efficacy and healthcare structures, the negative image of psychiatry as well as the stigmatization of psychiatrists, psychiatric institutions and psychiatric patients are a stunningly persistent phenomenon. To date, national as well as regional anti-stigma campaigns did not achieve significant and sustainable effects in reducing public stigma of patients [26, 103]. As the stigmatization of patients with mental disorders, psychiatrists and psychiatry as a medical profession is highly interrelated (associative stigma), the negative image of psychiatry continues to exist. Consequently, there are a number of discrepancies, e.g., between the high prevalence of mental disorders and their persistent stigmatization, between good efficacy of psychiatric treatment and high rates of underdiagnosis and undertreatment,

hans-juergen.moeller@med.uni-muenchen.de

- Department of Psychiatry and Psychotherapy, Ludwig-Maximilians-University Munich, Nussbaumstr. 7, 80336 Munich, Germany
- Department of Psychiatry and Psychotherapy, University of Bonn, Sigmund-Freud-Strasse 25, 53105 Bonn, Germany
- Department of Psychiatry and Psychotherapy, Heinrich-Heine-University Düsseldorf, Bergische Landstraße 2, 40629 Düsseldorf, Germany



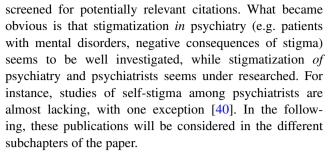
A. M. Möller-Leimkühler anne-maria.moeller-leimkuehler@med.uni-muenchen.de
 H.-J. Möller

as well as between high subjective and economic burden caused by mental disorders and the low public interest in these implications. Although the capacity of healthcare services for mental disorders has been increasing, there is evidence that their demand is predominantly provided by general practitioners and somatic disciplines [66], mostly for mildly to moderately severe cases while psychiatrists see the most severe cases. In some countries (Germany, Austria), a rapidly growing number of non-medical psychotherapists are treating mentally ill patients independent of general or specialized medical services.

Facing all these conflicting characteristics of contemporary psychiatry, the basic question is why the image of psychiatry is so bad. However, while there are plenty of studies aiming at identifying stigmatizing attitudes among the general public, medical students, health professionals and the media, this question is seldom posed. Which are the reasons for the continuous underestimation of psychiatry? Is psychiatry as a medical profession and are psychiatrists as mental healthcare providers solely victims of public devaluation? Or do they themselves contribute to their underestimation? In this paper, we will shortly summarize the main social stereotypes and misconceptions, discuss the question whether underestimation of psychiatry is based on social artefacts, then focus on internal problems in the field which may contribute to or foster negative perceptions and finally point out some possible strategies of how the status of psychiatry can be improved.

Methods

The starting point of this paper is the "WPA guidance on how to combat stigmatization of psychiatry and psychiatrists" by Sartorius et al. [102], which includes a comprehensive literature overview of stereotypical perceptions about psychiatry, psychiatrists and psychiatric treatment of the general public, media, medical students, health professionals and patients with mental disorders and their relatives. To update their findings, a selective Medline database search was conducted for the years 2010-2015. Inclusion criteria were "stigma," "stereotypes," "public image" and "psychiatry" or "psychiatrists" in English or German publications. A global search with the terms "stigma" and "psychiatry" resulted in 659 citations for the selected years. Most studies did not comply with the search terms, mainly referring to stigma perceptions among persons with mental disorders and related consequences, e.g. treatment seeking, or stigmatizing attitudes of the public or healthcare professionals. A more focused search using the terms "public image" and "psychiatry" yielded 31 papers, of which only 10 dealt explicitly with the subject of our search. Additionally, the reference lists of newly published papers were



Compared with the paper of Sartorius et al. [102], the current paper will focus more strongly on possible causes of the negative image of psychiatry in order to better identify starting points/weaknesses for improvements. Certainly, the causes considered and the related recommendations are not complete and might partially lack evidence. In consequence, and due to the complexity of the subject, the current paper is rather conceptual than conforming to the standards of evidence-based medicine.

Stereotypes, misconceptions and their consequences

Stereotypes and misconceptions towards people with mental disorders and psychiatry have been shown to be predominantly negative due to culturally well-anchored social representations and selective information and portrayals by the mass media [53, 102]. Mentally ill persons are still associated with notions of being self-responsible for their disorder, dangerous, unpredictable, untreatable and difficult to communicate with. Psychiatric hospitals are still associated with locked doors, straightjackets and psychotropic medication which is held to be addictive, sedative, invasive and not effective, while positive effects are underestimated. In contrast, the expectations for psychotherapy are usually overestimated compared with the evidence base. In Germany, attitudes towards people with severe mental disorders seem not to have changed in the recent 15 years or even have worsened, e.g., for schizophrenia. However, with respect to depression, there seems to be a reduction in stigmatization, possibly initiated by prominent persons (e.g. football players) speaking openly to the public about their illness. Furthermore, the common public acceptance of burnout as a risk factor for depression might significantly contribute to reduce the stigma of depression.

Also, attitudes towards psychiatric treatment seem to have somewhat improved—including psychopharmacotherapy [4].

With respect to psychiatrists, studies find a number of contradictory irrational attributions such as being repressive, hostile, crazy, peculiar, ineffective, but also being able to oracle or superhealing. A popular belief even today is that psychiatrists do not need a medical degree or



postgraduate training [92]. Patients and relatives have more positive opinions towards treatment and psychotropic medication in the course of their treatment, and more ambivalent and positive attitudes to psychiatrists. However, significant contradictions appear when considering the usually high satisfaction rate of patients with treatment and psychiatric staff [79] and the attitudes of psychiatric "survivors," a minority group, who feel violated by experiences in psychiatric treatment settings and mainly support anti-psychiatric beliefs pretending to rely on human rights.

To a great extent, attitudes of medical students are similar to those of the general public [92] and obviously have not changed in the last years. This is not astonishing as medical students are part of the public and thus exposed to public opinions and media portrayals. For instance, a study found that 26 % of medical students and 47 % of the public would feel uncomfortable sitting next to a psychiatrist at a party [100]. Despite medical students' access to information and education, their understanding of psychiatry is reported to be poor at present [100]. There is also some evidence for contradictory perceptions among medical students, ranging from psychiatry being most attractive because of its intellectual challenges to psychiatry lacking a solid scientific foundation and not being real medicine [102]. Partly, this negative image can be ascribed to psychiatrists not being good "role models" for students and the relative low status and respect of psychiatry among other medical disciplines [110]. Medical students' stigma towards patients with mental health problems may even worsen during medical education [61, 65, 116].

The consequences of psychiatry's underestimation and stigmatizing people suffering from mental disorders are multiple and severe, for patients as well as for psychiatry as a profession constituting a vicious circle of interactive effects.

- Fear of being stigmatized and self-stigma are the main reasons why people with mental health problems avoid medical help-seeking [115]. Representative data indicate that among people with a 12-month diagnosis of a mental disorder only 18.9 % reported any service use in the last 12 months [71].
- If psychiatric services are used, non-compliance is a serious problem, and about 50 % of the patients are non-compliant [44, 105]. Beside a number of influential factors, negative attitudes towards psychotropic medication are a powerful barrier to treatment adherence.
- Both, lack of help-seeking and non-compliance may worsen the course of some disorders, promote repeated hospitalizations, mental and somatic comorbidity and often result in delayed and misguided care. For instance, in a sample of 10 million insurees 77.5 % of persons with severe depression were treated with five kinds of

- treatment that were provided exclusively by primary care physicians and other specialists in somatic medicine [39].
- Stigmatizing attitudes are prevalent among (mental) healthcare professionals [40, 102, 104]. Data indicate that psychiatric patients suffering from somatic comorbidities obtain suboptimal medical care compared with somatic patients without mental disorder [18]. Premature death among the former patients is not only due to higher suicide rates, but also due to the consequences of insufficient medical treatment [114].
- Stigma and discrimination do not only affect the mentally ill, but also psychiatrists and psychiatry as a medical profession (associate stigma), an issue that seems rather neglected to date. The main source for the abovementioned stereotypes is negatively biased representations in various media, but also devaluating opinions from other medical specialists challenging the professional identity of psychiatrists. Recent data on perceived stigma in psychiatrists and general practitioners indicate that there may be a lack of self-confidence among psychiatrists which is more pronounced compared with general practitioners due to more discrimination experiences and self-stigma [40].
- An under-appreciation of the discipline psychiatry in the medical community is occurring in some places. One reason is the "de-medicalization" of psychiatry by priorization of unspecialized multidisciplinary psychosocial services to all groups of the server mentally ill [13]. The role of the psychiatrists is getting marginalized in this "recovery-oriented system of balanced care" preferentially taking place in the UK [48].
- The negative image of psychiatry is seen as being one of the main factors causing a shortage of young psychiatrists, which appears to be an international problem [88]. Particularly, the perception of poor prognosis of psychiatric patients and perceived lack of scientific foundation reduce medical students' interest in psychiatry [16]. Despite initiatives in the UK to increase recruitment into psychiatry, the proportion of medical students choosing psychiatry as a career is reported to not have changed since 1974 [47].
- Simultaneously there is a continuously growing interest among non-medical disciplines (especially psychology), non-medical professionals and students to enter the field of mental health care by offering specific treatment components (especially psycho- and sociotherapy).
 Mild or moderately ill psychiatry patients are mainly addressed by the non-medical therapists. The acceptance of non-medical services for mentally ill patients originates at least partly from avoiding the negative experienced stereotype of psychiatry when seeking help. Thus, the current number of licensed non-medical



psychotherapists in Germany and Austria is outnumbering psychiatrists by a factor of 5 and more.

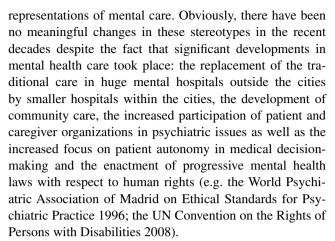
Is the negative image of psychiatry based on social artefacts?

There is no doubt about the fact that the negative image of psychiatry is in sharp contrast to numerous advances in mental health treatment and mental healthcare organization as well as in the scientific development of psychiatry as a profession. Interestingly, these progresses did not change the public attitudes towards psychiatry, the reasons of which are multiple and partly due to socially created artefacts. Overestimation of coercion in psychiatry, associative stigma, lack of public knowledge about mental disorders, (over)simplification of complex mental issues, social fear of otherness and blurred boundaries between normality and psychopathology are some relevant factors which might undermine the professional authority of psychiatry.

Overestimation of coercion in psychiatry

One major issue among these different factors seems to be the overestimation of coercion in psychiatry. Psychiatry is the only medical discipline which is viewed as coercive since its beginnings as a (scientific) medical discipline 200 years ago. In a representative German survey conducted in 2000, 25 % of the respondents wrongly believed that patients were not let out of the hospital and 50 % believed that straightjackets were still in use [2]. Psychiatric asylums, compulsory treatments on patients and their seclusion from the rest of society have been described by mass media and sociologists as prison-like total institutions, where everyone would lose his mind and freedom (e.g. [45]). These opinions culminated in the anti-psychiatry movement in the 1970s. Even in 2009, one of the leaders of this movement, psychiatrist Thomas Szasz, known for his ideological critique of psychiatry as a science and his interrogation of its ethical foundation, stated that psychiatry should be defined by coercion, not by cure. "The psychiatrist's basic social mandate is the coercive-paternalistic protection of the mental patient from himself and the public from the mental patient" [112]. Another statement of the social psychiatrist Dörner [23] following the theories of Foucault [31] regarded the seclusion of the mentally ill from society as the key figure of psychiatry since its institutionalization in France in the early nineteenth century, leading to a care system in huge hospitals (asylums) outside the cities to guarantee an undisturbed life of the non-mentally ill citizens.

The public's negative image of institutional psychiatry may be partially rooted in those historically based social



Indeed, the stereotype of psychiatry as an agent of social control highlights a fundamental and innate dilemma of the psychiatrist due to his double role—to serve both a therapeutic and a regulatory mandate. However, as a doctor the psychiatrist is primarily responsible for protecting and rehabilitating the mental health of his patient. In combination with the regulatory mandate to control deviant behaviour in order to protect society from the risks potentially posed by mentally ill persons, role conflicts seem to be inevitable and are often difficult to dissolve. The primary concern is whether the restriction of the patients' personal rights due to compulsory care can be ethically and clinically justified [106]. Thus, self-harm or dangerousness of the mentally ill person as legal conditions to involuntary admission has to be carefully examined and clearly defended in the contact with relatives, physicians from other disciplines, police or media. Specifically, compulsory treatment of a patient in order to solely protect the safety of third parties may aggravate the psychiatrist's conflict between medical, ethical and legal concerns. This dilemma is also internationally reflected by diverse legal, ethical and clinical standards in EU countries, requiring an increased international discussion [21].

Associative stigma

Since Goffman [46] it is known that stigma extends from the stigmatized person to persons in close contact to the former, whether they are family members, friends, mental healthcare professionals or psychiatric institutions (courtesy stigma, associative stigma, secondary stigma). The pure choice of psychiatry as a profession seems to be linked with social devaluation which is definitively an artefact. Gaebel et al. [40] found that psychiatrists in various countries perceive higher stigma and discrimination than general practitioners. Associative stigma is also a marked problem of young psychiatrists in training who report stigmatizing experiences within society in general and the medical environment in particular [12].



An unpublished survey by the "Workgroup on the Image of Psychiatry" of the National Societies of Psychiatry in the EPA (W. Maier, P. Valon, M. Carrasco, W. Gaebel, T. Kurimay, A.M. Möller-Leimkühler, HJ Möller and P. Falkai) revealed that an overwhelming majority of respondents (66 %) experience self-stigma of psychiatrists as a major concern in the medical community. A comprehensive working platform on this topic deserves a maximal priority for the EPA.

The effects of associative stigma are related to dimensions of burnout and less job satisfaction among psychiatrists and may increase self-stigma and dissatisfaction among patients [118]. However, there is also a considerable contrast of perceived stigmatization as a psychiatrist and job satisfaction. Studies from several European countries demonstrate a high level of job satisfaction and correspondingly low to medium burnout rates among psychiatrists [7]. Similarly, psychiatry trainees are mostly satisfied with their training, and satisfaction tends to increase with duration of the training [10].

Stigma does not encompass all mental disorders to the same degree; it mostly affects severely mentally ill patients (mainly with the diagnosis of schizophrenia, [4]). The stigma for less severely ill cases who preferentially attend psychotherapists is decreasing—at least in Germany. Psychotherapists as a special group of mental health professionals seems to experience a more positive public acceptance compared with psychiatrists, possibly due to the fact that they have no licence for compulsory treatment.

Lack of public knowledge

Although being a fundamental component of good health, mental health has a comparatively low rank in community health policies, also manifesting in little knowledge about mental disorders in the general public. There is evidence from surveys in several countries for deficiencies in the public knowledge concerning prevention, recognition and treatment of mental disorders [58]. There is also evidence that mental health literacy can be improved by a range of interventions, although it has to be considered that information alone does not alter attitudes or behaviours. Possibly, disorder-specific interventions may be more effective than general approaches to mental disorders [24], e.g. antisuicide campaigns for people suffering from depression [50].

The impact of knowledge on the attitude to mental illnesses, however, should not be overestimated even if they are diagnosis specific. For example, after several nationwide anti-stigma campaigns on schizophrenia and depression, during the last 15 years in Germany the stigma on mental disorders measured by social distance did not change to a substantial degree—for both disorders [4].

(Over)simplification of complex mental issues

(Over)simplification as a means to reduce complexity is relevant in understanding the mechanisms of social stereotypes and lay constructs of mental disorders.

While stereotypes support social orientation and cognitive economy, they are persistent and rather resistant to change even if stereotype inconsistent information is given [78]. Due to these functions and the fact that stereotypes are operating at a preconscious level, they can hardly be modified by short term interventions [63]. They are rather reinforced through negative representations of the mentally ill and psychiatrists by popular media and their internal journalistic selection criteria, thus producing a circular link.

Another issue that may contribute to understanding the persistence of stigmatizing attitudes towards people suffering from mental disorders should be mentioned: the social fear of otherness which is obviously an anthropological fact and refers to in-group overevaluation and out-group devaluation, a stereotype-associated phenomenon which can be observed throughout history and which has led many times to ethnocides and genocides.

Lay constructs of mental disorders and their causes (e.g. the broad acceptance of the burnout concept instead of depression) may differ significantly from psychiatric diagnoses due to multiple factors, including the social context, cultural beliefs as well as the need to simplify complex issues. Particularly, the biopsychosocial model of mental disorder is insufficiently elaborated as a concept and might therefore be too complex to be successfully translated to the public and also to the medical community (physicians). This may only partly be due to the degree of mental health literacy, and other reasons such as the resistance to expert diagnosis or the fear of stigma have also to be considered [90, 93]. For instance, depicting mental disorders as brain diseases facilitates the acceptance of professional medical treatment; however, it does not change lay constructs of psychosocial stress being a major cause of mental disorders [103].

No clear cut line between normality and psychopathology

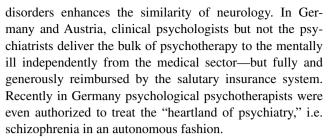
The "objective" validation of psychiatric diagnoses in the context of multiple revisions of diagnostic constructs (ICD and DSM) continues to be a dominant topic of discussion in psychiatry and is the main argument for questioning its scientific/medical status by the general public and among medical disciplines. The fact that there is no clear cut line between normality and psychopathology (and more complicated, that experts' diagnostic definitions depend on time and culture, e.g. homosexuality) is a principle, inherent and unique characteristic of psychiatry. Along these lines, the



lack of biomarkers supporting the reliability of the clinical diagnosis of mental disorders supports the notion of other medical disciplines that psychiatry is different from medicine, not exact and not scientifically based. Thus, criticism from different segments of the public, medical community or lay organizations is obviously predetermined, ranging from the notion that mental disorders do not exist at all, that diagnoses lack a scientific basis and are open to any exploitations for social control, political or economic purposes. As the diagnostic classification is currently based on patients' as well as relatives' reports, clinical symptoms, observable behaviour and psychometric tests, diseasespecific biological markers (=biomarkers) are still lacking even in the most recent version of DSM, the DSM-5 [83, 84]. The repeated modification of diagnostic manuals redefines the critical border between normality and disorders within one or two decades differentially, just by committee consensus. This habit creates the impression that psychiatric diagnoses seem to be arbitrary and not scientifically based although similar problems occur in other disciplines (e.g. blood pressure, metabolic syndrome). Research in neuroscience has been impressively successful in understanding the genetic and molecular architecture of mental disorders in general and the basic neural circuitry underlying neural activities such as attention, memory or emotion; however, the hope to use these findings in order to validate mental health diagnoses by biological markers or laboratory tests did not come true so far [27, 86]. The lack of biological markers is far from being unique to mental illnesses but can be found also in other medical disciplines and disorders (e.g. migraine). Furthermore, the accuracy (in terms of reliabilities) of many psychiatric disorders is not underneath major diagnoses in other medical disciplines; nevertheless, they are suspected to be pseudo-medical.

Competition and intruders

Already many years ago Pichot raised the concern that psychiatry is in danger to be absorbed by other disciplines. According to the wide range of mental disorders and their implications, a variety of methodological and theoretical approaches from other medical disciplines (Neurology, Psychosomatics) and from psychosocial sciences (Psychology, Social workers, Health Science) has been adopted. However, this structure implies the risk of hostile takeover by one or more of a number of disciplines like neurology, general medicine, alternative medicine, clinical psychology or social work taking advantage of psychiatry's stigma, lack of laboratory tests and clear diagnostic boundaries in order to gain new territory. For example, in UK and some countries nurses have the allowance, although restricted, to prescribe psychotropic medication for the patients. The unravelling of the neurobiological basis of several mental



Within this intense competition, psychiatry appears as losing its identity, psychiatrists even being "an endangered species" [62]. The negative effects of the growing involvement of medical as well as non-medical disciplines on the jurisdiction of psychiatry in the treatment of mental illness may be further reinforced by patients' and caregivers' organization bringing in their opinions and experiences. Thus, at least in some European countries, psychiatrists' remaining competence seems to be confined to severe mental disorders and their pharmacological treatment options which are not estimated by the general public very well.

Psychopharmacological treatment and link to pharmaceutical industry

As this topic has not been in the focus of other recent stigma related publications like Sartorius et al. [102], we will address this issue here, given its relevance in the recent decade. For some time, the relations between psychiatry and the pharmaceutical industry have been of specific public interest. As psychiatric diagnoses are often perceived as pseudo-medical disorders/labels, it seems, e.g., logical from outside to conclude that a psychopharmacological treatment might be unnecessary and rather harmful than effective. In this context, the continuous reports and discussions about, e.g., the so-called low effect size of antidepressants in the scientific literature (meta-analysis by Kirsch et al. [64], critical response to this by Möller [81], Fountoulakis and Möller [33], Fountoulakis et al. [34]) and in consequence in the mass media (see critical comments by Fountoulakis et al. [32], Nutt et al. [91]) express and reinforce stigma against mental disorders and their pharmacological treatment. Interestingly, the effect size of antidepressants and other psychopharmaceuticals is on a comparable level as the effects of medications used in internal medicine [69], where none of this overcritical interrogation takes place. This critical discussion ignores eminent historical merits of clinical psychopharmacology, e.g. maintenance treatment with neuroleptics enabled patients with chronic schizophrenia to live in the community and take advantage from psychosocial interventions. Furthermore, antidepressants contributed substantially to the decline of the suicide rates in many countries.

Stigma is also strengthened by the continuous interrogation of the advantage of the modern, so-called



second-generation antipsychotics in the scientific literature with a culmination around the CATIE study [60, 68, 70, 80, 113] and in consequence by the mass media. In general, it is well known and already reported in earlier reviews on stigma of psychiatry that treatment with psychopharmaceuticals is under a very critical focus by mass media with a stereotypical negative reporting, both content-wise and in an exaggerated rhetorical style—widely in contrast to the reporting of medication used in internal medicine [3, 8, 49, 52].

Pharmaceutical companies are accused by the media and prominent experts to "disease mongering," that is extending the boundaries to treatable illness to expand markets for new products [6, 87]. Psychiatry, specifically with respect to DSM-related inflation of diagnosis (see below), is consequently accused to be in collusion with the pharmaceutical industry and an easy target for corrupt influence [55]. Another often presented argument in this context, undermining the credibility of pharmaceutical companies and their research actions, and in consequence also psychiatry, is the underreporting of negative drug trials [117]. Interestingly, the same phenomenon has been described for psychotherapy studies [14, 15, 30], however, in contrast to drug trials, interestingly without any negative consequences in the media and public opinion. The recent almost unreflected reporting on brain alterations under treatment with antipsychotics [38], inducing the question whether treatment with antipsychotics has an appropriate risk-benefit profile, and the respective one-sided discussion in the mass media is another example for overcritical reporting by psychiatrists themselves, mirrored by mass media and public opinion (see [35], and letter to the editor by Falkai [27]).

Given these complexities of drug treatment, postgraduate education of psychiatrists in psychopharmacology should be intensified. However, it was downgraded in some countries (ironically), while the psychotherapeutic component has been strengthened (e.g. in Germany, Denmark [67, 108]). This change is motivated by the growing scepticism towards psychopharmacology and will in the long term highlight psychotherapy as the major therapeutic competence for psychiatrists.

Lack of funding for mental illnesses

Overall in funding of services and research in medicine the amount of funding of medical disciplines is correlated with the mortality of the respective disorders. This is particularly true for mental disorder, where mortality is a bad indicator of its clinical relevance. Other issues of medical relevance are ignored; e.g., depression predisposes to heart infarcts, but the resulting mortality is fully accounted for the heart diseases. More appropriate indicators are "loss of quality of life" and "loss of quality-adjusted years lifetime

(QUALYS)". Even though also these indicators probably underestimate the role of mental disorders, an eminent discrepancy is observed: mental disorders account for 20 % loss of QUALYS but receive only 10 % funding. These figures represent the lack of awareness of governmental authorities; the stigma on mental illness might be a reason for this ignorance with the consequence of enhancing stigmatization. The apparent underfunding of psychiatry has not only deleterious consequences for the amount and quality of care. It also contributes to the status of psychiatry in medical communities and is a frequently cited argument by medical students when deciding not to become psychiatrists.

To what extent is psychiatry self-responsible for being underestimated?

There is no way for psychiatrists and psychiatry as a profession not to deal with the different aspects of the public's perceptions and own vulnerabilities outlined above. Some of these aspects might hardly be modified; however, psychiatry has to bear responsibility for presenting itself as a serious academic discipline as well as an institution providing the best mental health care for all patients with mental disorders. Thus, the question arises, which are the weak points or are those internal issues probably fostering underestimation?

No clear professional identity

As pointed out above, psychiatry seems to lack a professional identity due to the complexity of its subject, to diverging internal ideologies and to the increasing competition from other professions. In contrast to other medical disciplines, there is a lack of a coherent theoretical basis [62]. Actually, psychiatry includes different "cultures" of knowledge and care. These different approaches are frequently not acting in harmony and synergy but are creating conflicts between a social and a neurobiological dimension [13, 99]. Those controversies damage the image of psychiatry. Instead of building on and further developing a strong biopsychosocial model as a common theoretical basis and "trunk of a tree" [51, 72], the trend is to underline diverse branches of the tree, e.g. biological [94] or social psychiatry [99]. Recent research progress provides now cohesive integrated models what might be useful in the future [73].

Certainly, the biopsychosocial model has been criticized for being arbitrary and vague with regard to causal explanations, but leaving this integrative model would not solve the underlying problem. Big hopes and a new identity are currently linked to genetics and neuroscience being described as a new paradigm shift in clinical care, research



and education [101]. But what about the public perception of psychiatry defining mental disorders as brain disorders? As recent data indicate, the promotion of the biological model has improved the acceptance of professional treatment, but not the acceptance of the mentally ill [103]. Insofar it is probably not a cure for the patients' stigma [97], and whether it is a cure for psychiatry's public image remains an open question. What is perhaps more important is the risk of losing sight of the suffering patient as a whole person.

The current move of the clinical field of psychiatry (originally medical care for mentally ill patients) towards promotion of mental health in the general population ("mental health problems," [72]) might contribute to the downgrading of medical aspects of care [13]. Although this development is rational given the research on pathogenesis and early stages of mental illness, psychiatry is challenged as a medical discipline. The vagueness of the identity of psychiatry has also serious consequences on the organization of mental health care; some countries are taking different positions—partly due to political decisions: in Denmark psychiatry was secluded from the medical hospital system created by the misunderstanding that mental disorders are mainly socially defined but less so medically [108]. In the UK, a political reform (Department of Health "New Ways of Working of Psychiatrists" [19]) gives priority to non-specialized multi-professional general care for mental health promotion lead by a non-medical "clinical governance" [48].

Consequently, questions were raised as: "What is the role of the medically trained professional in mental health care? What does the medical approach add, and what are its disadvantages?" [9].

Changes in diagnostic classifications and lack of biomarkers

Models of mental disorders are complex [41, 121] and involve among others neurobiological and psychosocial factors, and their conceptualizations are changing over time with different focuses. Psychiatric diagnoses reflecting these developments in the aetiopathogenetic understanding are changing too over time. This instability is not unusual in other medical disciplines, but in the outside perception of psychiatry it creates the impression that there might be something wrong with psychiatric classification and diagnoses and that it might be not valid or not reliable or both. "In more than 30 years of work at the international level, I have never seen such an international campaign in so many countries against the validity of psychiatric diagnoses and the efficacy of psychiatric treatments, especially medications, and I have never experienced such a weak and ambiguous response by our profession, with so many prominent figures in the field just arguing against each other and actually reinforcing the bad public image of psychiatry" [72].

The debate whether changing diagnostic classification is representing a scientific progress or an indicator of a certain arbitrary approach to diagnoses has recently culminated around the development and release of DSM 5 which has been highly noticed by the public. Arguing about classification is quite common in medicine, but the difference is that lay people/the public believes they can judge the arguments about psychiatric diagnoses than diagnosis in other fields of medicine. While the first DSM (1952) listed 106 disorders, DSM-2 (1968) listed 182, DSM-3 (1980) 265 and in DSM-4 (1994) the number of diagnoses increased to 365. DSM 5, published in 2013, did not add many new diagnoses, but has been criticized for creating more mental patients by lowering the threshold for several disorders, especially depression, and for pathologizing normal behaviour [6, 83]. Other critique refers to the lack of validity within diagnostic categories due to missing biological markers which define them, and the low interrater reliability of many disorders, e.g. less than 0.30 for depression to mention an extreme case [84]. As a consequence, for example, the US-American NIMH, which is the world's largest research institute for mental health, has announced to reorientate its research from DSM categories towards neuroscience-based proposition of a new classification system (Research Domain Criteria, RDoC [54, 55]). Already for psychiatrists this competition between the DSM 5—primarily US-American, but worldwide well received especially for research purposes—and the RDoC is difficult to understand. Particularly, if the potentially complementary character of the two systems is not understood, this sheds even more problematic light on psychiatric classification and disorders in view of the public.

With regard to the public image of psychiatry, a fundamental concern is that by lacking either a sound biological basis or a deeper description of the patient's individual problems, the person has been lost-which is the real subject of psychiatry [98]. A particular internal challenge to psychiatry is the decreasing confidence in the knowledge base of diagnosis and classification [62]. Instead of taking the individual concerns and impairment of a patient seriously, he is diagnostically relabelled because of the change in symptom based diagnostic definitions by the committees (without improving treatment and outcome options)—without any change in the individual medical problems. Thus, not only the scientific but also the clinical utility of DSM is questionable. This question is underlined and even more complicated by the fact that beside the DSM system the ICD system (official classification system of WHO and worldwide mandatory, especially for clinical use and documentation) exists, of which the 11. edition is now in preparation [43, 74]. As far as it can be seen, it will have many



similarities with DSM 5, but concurrently, there will be a lot of differences as already in times of coexistence of ICD-10 and DSM-IV. Again, these inconsistencies induce questions about the validity of psychiatric constructs. It is difficult to recognize the necessities of the continuous changes in diagnostic definitions in the absence of breakthroughs of major clinical relevance which might motivate convincing and useful changes in previous diagnostic views. Instead, the current continuous modification of diagnoses without compelling necessity stimulates doubts in the seriosity of the scientific basis of psychiatry.

Limited consensus about best treatment decisions

As patients have easy access to detailed medical information by printed media and internet, they often will make the experience that the psychiatrist's prescription seems not to follow EBM-based guidelines. That he is probably more driven by clinical experience and individualized decision-making is difficult to understand from a patient's view. Generally, guidelines have not been so well received even by experts, because they feel that they only follow the smallest common denominator, that guidelines are too conservative, and taken all guidelines for special indications together, that there are a lot of discrepancies. Thus, it can happen that one psychiatrist recommends another treatment for a given mental disorder than the other, which is confusing from the patient's viewpoint. For example, a patient suffering from depression could be recommended by one specialist to take an antidepressant, by another specialist to undergo psychotherapeutic treatment only, or by a third one to take a mood stabilizer (based on the assumption of bipolar depression). In this context, especially in the case of non-response, rationality or irrationality of comedication/polypharmacy is a matter of continuous debate [85]. The patient might also experience that in contrast to guidelines recommendations (e.g. [20]), he was not offered psychotherapy or a combination treatment with psychotherapy first rank, but primarily an antidepressant. Psychotherapeutic treatment is, as studies have demonstrated, less common and less achievable in everyday practice than recommended in guidelines [82]. In this context, also the discrepancies between expert opinion and respective treatment decisions and patient's therapeutic preferences lead to dissatisfaction of the patient. While psychiatrists often prescribe psychopharmaceuticals first line, patients might prefer psychotherapy. In general, public beliefs are more positive to many other, often rather irrational treatment options than to psychopharmaceuticals, which rank on the last places, e.g., in the case of depression [49]. Although some of these reported problems might also be an issue in other fields of medicine like internal medicine, they seem much more important in psychiatry and, especially, they

are frequently over-exaggerated in the public opinion and mass media with the tendency to diminish the reputation of psychiatric treatment.

Lack of collaboration with other medical disciplines/ settings

Mental disorders are (a) risk factors for several somatic diseases and (b) sequelae of major somatic disorders with deleterious effects on quality of life and mortality. There are strong associations to the metabolic syndrome and cardiovascular diseases leading to major needs of collaboration with other medical disciplines.

Yet, due to the separation of providing health care in sectors (in- and outpatients), and in general and specialized disciplines, psychiatry lacks collaboration with, e.g., general and internal medicine. Treatment gaps for patients (in particular comorbid patients) as well as interdisciplinary research gaps are the sequelae. A major reason is that "interface" competences with somatic medicine like psychooncology, psychodiabetology and psychocardiology are not well developed in psychiatry—at least in many places.

Most psychopharmaceuticals are prescribed by general practitioners, and most patients with mental disorders, in particular depression, are treated in primary care. However, there is broad evidence for a number of problems: in about 53 % of patients suffering from depression, depression is not recognized by the GPs [77], in the case of correct diagnosis only a subset receive adequate treatment, while depression treatment is often not appropriate and effective [96]. This is due to a number of provider and patients' characteristics, but can also be attributed to a lack of collaboration between general practitioners and psychiatrists. As studies have shown, the usual treatment by GPs does not follow the stepped care model for depression and over-rely on antidepressant prescriptions with high rates in Europe as well as in the USA [36]. They seem to be unrelated to the severity of symptoms, are not given at the right dosage, are not monitored carefully and do often not comply with the patients' therapeutic preferences [49]. In addition, brief but effective psychotherapeutic interventions are seldom offered in the general practice because of lack of expertise and time of the GPs, although they are considered to be important [5, 20, 36]. Consequently, these treatment gaps result in unmet patients' needs and low treatment adherence which again reinforce negative attitudes towards psychotropic medication.

The status of psychiatrists and recruitment rates among medical students

Within the medical community, the status of psychiatry and psychiatrists is considered to be low and reported for most



countries [110]. Multiple reasons can be cited for an explanation: separations between physical and mental health care at least in some countries; marginalization of the psychiatrist compared to non-medical professions in a less specified mental health system; consideration that the field is less scientifically based than others what is reflected by vagueness in diagnoses and therapies; broad heterogeneity of approaches to conceptualize, treat and control mental illness (including non-medical approaches); and the difficulty to integrate these approaches into a convincing biopsychosocial disease model.

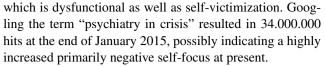
Thus, it does not come as a surprise that since recent decades, recruitment of medical students into psychiatry is insufficient and not developing in the needed scope; also there is a substantial drain of psychiatry among the beginners in the field. Some surveys in medical schools even concluded that "medical schools are a breeding ground for stigma and discrimination" towards mental illness [1]. In this context, a survey on attitude of medical school faculty members reported that psychiatry and psychotherapy are not presenting a good "role model." Apparently, our discipline carries the responsibility for its negative image.

What can be done? Some recommendations

Our recommendations are in line with those of the WPA guidance by Sartorius et al. [102]. In addition to these, we will point out some strategies which can be derived from the problems outlined above. The frequently stated assumption that the bad image of psychiatry is predominantly a matter of communication (e.g. with the media or with medical students) seems too short-sighted, as it does not touch the focus of the issue which is the self-concept of psychiatry—or the trunk of the tree. Creating and representing a positive self-image is therefore the basis for any further actions to improve the image of psychiatry. Creating a positive self-image includes the following components.

Build self-esteem, self-confidence and stop self-stigma

Adopting to associative stigma results in self-stigma and promotes a self-image as victim which seems a dysfunctional response while supporting the stereotypes [89]. Blaming solely the others, public, media and other medical disciplines for psychiatry's bad image while ignoring the own shortcomings is one key point, the other is a kind of one-sided propaganda to push psychiatry primarily as a neuroscience (e.g. [54, 59]) instead of promoting psychiatry as one of the three large medical disciplines beside surgery and internal medicine, well grounded by a biopsychosocial framework. Creating a positive self-image should be directed to the patients' needs, not to a constant self-focus



Our recommendation is that psychiatrists should learn to bring success stories on progress of mental health care much more frequently into the public, e.g. reduction in suicide rates, increased acceptance of treatment, new and effective psychotherapeutic interventions, new effective biological treatments like rTMS as well as the fact that the treatment efficacy measured by NNT is very similar between psychiatry and other medical disciplines.

Building a positive self-assertiveness includes that critiques from outside, even from anti-psychiatry has to be taken serious without leading to self-devaluation which would otherwise affect the patients.

The WPA and some authors plead to extend the term "stigmatization" from patients to their medical carers and to self-referential processes ("self-stigmatization"). These modes of description and, respectively, self-description are esteemed as "inappropriate" to us. A core argument addresses non-medical professionals. In the public and also in the medical community, another professional group of carers, psychotherapists (including psychologists), are far from being stigmatized by professionals and are resistant to self-stigmatization. Thus, it is not evident that closeness to the stigmatized patients has contagious effects on their medical specialists. "Stigma" includes that those who carry the stigma experience "mal-judge" and those who stigmatize are ignorant and evil-minded. Yet, there are serious internal challenges of our discipline contributing the low status. Those challenges have to be solved within our discipline.

The biopsychosocial model as an integrative framework

It is a great strength of psychiatry to be the only medical profession to deal with the patient as a person in an era increasingly dominated by organ-based medical subspecialities [25] and molecular paradigm shifts, e.g. in cardiology or general medicine [56]. Psychiatry's focus on the patient as a person in theory and clinical practice is preserved by the biopsychosocial model integrating fundamental psychiatric knowledge ("understanding" and "explaining" by psychopathology and clinical phenomenology) with advances in neuroscience, genetics, social epidemiology and other fields in order to improve diagnosis and treatment [42]. As long as neuroscientific insights cannot be translated into diagnosis and treatment of an individual patient who present with his phenotype and not with his genotype or biosignature [57], boostering the image of psychiatry primarily as neuroscience seems to be one-sided and will be perceived by the public as inhumane and reductionistic. For all these reasons, the



biopsychosocial model may be seen as the trunk of the tree. Due to the heterogeneity of disorders and individual patients, it does not represent a unifying theory, but relies on a thoroughly interdisciplinary approach. This might be the most exciting and intellectual challenging approach psychiatry can offer even for young medical students, linking science and humanism. This is where the credibility of psychiatry lies.

The art of self-marketing

Representing a positive self-image and the advances and capacities of the field implies a positive and continuous contact between psychiatrists and the local media. While press campaigns have been developed and evaluated for reducing the stigma of persons suffering from mental disorders, no such interventions seem available with respect to the stigma of psychiatry/psychiatrists. Earlier recommendations focus on a higher visibility of psychiatrists in the media and on the combination of knowledge and contact to persons with mental disorders [102]. Besides expert information about disorders and treatment options, basic questions should also be addressed in the media to battle myths and stereotypes about the work of a psychiatrist. One example refers to the assumption that psychiatric diagnoses must be based on biological tests to be valid diagnoses. It has to be communicated that a disorder can be diagnosed by its clinical picture, that biological tests in medicine are not deterministic, but probabilistic, that somatic diseases can also lie on a continuum with normality (e.g. hypertension, diabetes) and that in medicine there is also no gold standard for defining a state as disease [72]. Another example to battle myths is the belief that psychopharmaceuticals are not effective. It seems absolutely unknown to the public that psychiatric medication is as effective as medication in general medicine [69], if they are adequately prescribed. This fact has to be continuously communicated.

A further aspect of positive self-marketing has to be mentioned. In order to reduce confusion and uncertainty among the public and doubts about the seriousness of psychiatry in the medical community, internal dissents should not get out to the media. Psychiatrists should not be arguing against each other in the public, but present with broad consensus (trunk of the tree, [72]).

Presenting with broad consensus to the public, with information and success stories, and focusing on a confidential doctor–patient relationship as the basic component of treatment are important strategies to increase trust in psychiatrists and mental health services—which in turn would result in increased help-seeking in mental health care [40].

Integrating mental and physical health

To realize a biopsychosocial framework in diagnosis and treatment, a consequent integration of mental and

physical healthcare disciplines and services is required, on the system level (state, healthcare institutions) as well as on the individual level [18]. Although first steps have been achieved, this vision should remain a strong motivation for planned activities, according to the WHO statement "No health without mental health" and a recent EU initiative [76]. This would benefit particularly comorbid patients and their families, health professionals, notably general practitioners, as well as psychiatry's status as a medical profession and its stronger integration into medicine. Additionally, undertreatment, overtreatment and misguided treatment would be reduced, while continuity of care and the patients' social inclusion would be facilitated. As a basic requirement, health specialist should be able to diagnose comorbid problems, for psychiatrists this should be no problem because they have been trained in physical medicine and can rely on WPA recommendations for assessing physical problems in patients with mental disorders [17, 18]. However, diagnosing mental comorbidity might be difficult for medical doctors due to the fact that psychiatry is often neglected in medical schools [75]. To improve their diagnostic skills in mental disorders, (a) valid diagnostic instruments for mental disorders should be made available to other medical disciplines and (b) medical curricula in undergraduate and postgraduate training should be revised by teaching mental health know how and providing personal contact to persons with mental disorders, what has been proved to be one of the most effective anti-stigma strategies. Although there is growing evidence of comorbid mental and physical health problems, specialist care tends not to focus on comorbidity [17, 22, 76]. Consultation-liaison psychiatry is a mean to solve this problem for physically ill patients with psychiatric comorbidity. Liaison psychiatry services are mostly based in general hospitals, but also work with primary care in the management of comorbid medical and psychiatric illnesses. Generally, it should be mandatory for general hospitals to collaborate either with their own psychiatric department or with practicing psychiatrists, but this may be different in different countries; e.g., in Germany it is not mandatory [119]. Detailed guidelines for training in consultation-liaison psychiatry have been established, e.g., by the EACLPP workgroup (European Association of Consultation-Liaison Psychiatry and Psychosomatics; [107]). To date, scientific evidence referring to the effectiveness of liaison psychiatry in general hospitals is limited mainly due to methodological problems [120], and collaboration of psychiatrists and GPs in primary care is often impeded by numerous structural factors [29]. Thus, integrating mental and physical health care still remains a vision, but a vision that is widely shared by different parties.



Better recruitment of medical students in psychiatry

As mentioned above, the negative image of psychiatry is held to be one of the main factors causing a chronic shortage of young psychiatrists in many European countries, which can be also observed in general medicine, but to a lesser extent. Given the increasing burden of mental disorders and the increasing demand for psychiatric services, this will be a substantial problem. What can we do to make psychiatry more attractive to medical students? First of all, there is some consensus in recommending that students should be educated about psychiatry much earlier and should be given more opportunity to make experiences in psychiatry including personal contact to patients during their undergraduate and postgraduate years [47, 100]. This may be more important for psychiatry than for general practice or other specialities. A large multicountry survey [28] demonstrated that specific aspects of undergraduate education are associated with final year medical students choosing psychiatry as a career, e.g. importance of own vocation, interest in psychiatry before medical school, undertaking a psychiatry special study module or elective and exposure to didactic teaching. Furthermore, there is broad agreement that psychiatry should be presented within the mainstream of medical professions to counter the belief that psychiatry is too remote from medicine. However, what might be the most effective strategy in achieving this aim is still unclear. For example, despite of a decade of initiatives for medical students by the Royal College of Psychiatrists in the UK the recruitment rate did not change [47]. While emphasis had been put on the biopsychosocial model, alternative approaches call for more emphasis on the medical model in teaching psychiatry; however, the limited applicability of the medical model may be a reason for trainees to finally reject psychiatry. On the other hand, strengthening the link between psychiatry and neuroscience would be in accordance with the growing interest of students to work in the field of neuroscience.

In this context, Sondergard [108] raised the question: Are students after several years of learning anatomy, surgery, biochemistry, pathology, pharmacology, etc. ambitious to use, e.g., group therapy as their first priority? Those demands (group therapy) might be considered to be non-medical which would better be dealt by others. He concluded that as long as psychiatry is a quasi-medical speciality medical doctors might be reluctant to choose psychiatry. Thus, as long as psychiatry is a medical discipline, placement in the medical school curriculum must be adequate to the relevance of mental illness in the society, i.e. the loss of quality of life. How to change those disadvantages for psychiatry? It is well confirmed that the contact to patients early in the medical curriculum presents a particular advantage. For example, a randomized study with undergraduate

medical students demonstrated that stigma of mental illness by students can be reduced by integration of working with mentally ill patients in early phases of medical education [95].

Another useful approach is to focus more on consultation-liaison psychiatry what might underline the medical identity of psychiatry and present psychiatrists as good role models. Besides these self-concept-related aspects, it has been recommended that stigmatization should be a relevant issue in teaching medical students in order to reduce their own stigmatizing attitudes towards patients and psychiatry [40], especially as some data indicate an increasing stigmatization in medical students' final year [116]. There exists a variety of anti-stigma interventions for medical students and healthcare professionals involving direct contact, indirect film contact, an educational e-mail or a short workshop offered already at high school; however, all these interventions are only effective in the short term, but do not sustain over time [11, 37, 63, 111]. Future research needs to investigate which components of anti-stigma interventions are most effective and how prevailing effects in reducing stigma can be achieved (e.g. via booster sessions or better and continuous integration of anti-stigma interventions in medical education). Nevertheless, it has to be considered, whether anti-stigma actions among medical students can be powerful enough to influence their choice for psychiatry as career. To date, clear evidence is lacking. More than focusing on students' negative perceptions, it may be probably more promising to focus on the fascinating aspects of psychiatry cultivating an interdisciplinary biopsychosocial approach which is based on a close doctor-patient relationship. "Desirable vocational interest and selective recruitment may not increase without reforms in psychiatry's quasi defensive retreat to reductionist agendas and avoidance of critical discussion on unresolved theoretical issues" [109]. As Stampfer pointed out, the low interest in psychiatry is less a case of poor marketing, but more a problem of marketing a "product" which is perceived as unattractive. Thus, instead of doing "more of the same" which would not improve recruitment, the "product" has to be improved.

Empirical inquiries clearly support the view that the more and the earlier exposure to clinical psychiatry the stronger the experienced awareness of the importance of mental illness and the stronger the motivation for a career in psychiatry among medical students [108].

This goal to enhance medical students' interest in psychiatry requires the support by medical faculties. Thus, the critical questions are: Are medical schools willing and able to face this challenge to improve the status of psychiatry in the context of medical education? Are—given the impact of mental health—medical faculties willing to provide the appropriate status for psychiatry within the graduation of physicians? Inquiries in the attitudes of students and faculty



members in several countries came up with mainly negative answers. A multinational study reported that the teaching faculty members expressed opinions to medical students reinforcing misconceptions about psychiatry [110]; as a consequence, consideration of psychiatry as a potential career choice was dissuaded. However, the same report demonstrated that teaching psychiatrists contributed to these results by not presenting as good role models for the students.

Conclusions

The negative image of psychiatry has a double face: it is as well a result of unjustified prejudices (social artefact) as it results from objective complexities of the subject of psychiatry which are not easy to deal with: mental illness being different from physical illness, a wide range of disorders, a wide range of treatment options, difficulties in psychiatry's professional development and unfavourable selfpresentation in the media and in the healthcare system. In the face of a long history of psychiatry's negative perceptions and the persisting stigma of mental illness, improving the image of psychiatry is a complex and long-lasting challenge. Much can be done and multiple initiatives are on the way. However, psychiatry will remain a profession with an exceptional position concerning interdisciplinary links, diverging theoretical concepts, patients' needs and treatment decisions—thus disposing itself inevitably to external and internal criticism. Furthermore, psychiatry will have to continuously deal with the stigmatization of the mentally ill, which might be reduced in the long run, but cannot be completely eliminated.

Compliance with ethical standards

Conflict of interest The authors have no conflicts of interest to declare.

References

- Abbey S, Charbonneau M, Tranulis C, Moss P, Baici W, Dabby L, Gautam M, Pare M (2011) Stigma and discrimination. Can J Psychiatry 56:1–9
- Angermeyer MC (2000) Public image of psychiatry. Results of a representative poll in the new federal states of Germany. Psychiatr Prax 27:327–329
- Angermeyer MC, Matschinger H (1994) Lay beliefs about schizophrenic disorder: the results of a population survey in Germany. Acta Psychiatr Scand Suppl 382:39–45
- Angermeyer MC, Matschinger H, Schomerus G (2013) Attitudes towards psychiatric treatment and people with mental illness: changes over two decades. Br J Psychiatry 203:146–151
- Barkil-Oteo A (2013) Collaborative care for depression in primary care: how psychiatry could "troubleshoot" current treatments and practices. Yale J Biol Med 86:139–146

- Batstra L, Frances A (2012) Diagnostic inflation: causes and a suggested cure. J Nerv Ment Dis 200:474

 –479
- Baumgardt J, Moock J, Rossler W, Kawohl W (2015) Aspects of sustainability: cooperation, job satisfaction, and burnout among swiss psychiatrists. Front Public Health 3:25
- Benkert O, Kepplinger HM, Sobota K (1995) Psychopharmaka im Widerstreit. Eine Studie zur Akzeptanz von Psychopharmaka—Bevölkerungsumfrage und Medienanalyse. Springer, Berlin
- 9. Bhugra D, Moran P (2014) Alienation of the alienist: psychiatry on the ropes? J R Soc Med 107:224–227
- Bizrah M, Iacoponi E, Parker E, Rymer J, Iversen A, Wessely S (2013) A novel method of assessing quality of postgraduate psychiatry training: experiences from a large training programme. BMC Med Educ 13:85
- Brown SA, Evans Y, Espenschade K, O'Connor M (2010) An examination of two brief stigma reduction strategies: filmed personal contact and hallucination simulations. Community Ment Health J 46:494–499
- Catthoor K, Hutsebaut J, Schrijvers D, De Hert M, Peuskens J, Sabbe B (2014) Preliminary study of associative stigma among trainee psychiatrists in Flanders, Belgium. World J Psychiatry 4:62–68
- Craddock N, Antebi D, Attenburrow MJ, Bailey A, Carson A, Cowen P, Craddock B, Eagles J, Ebmeier K, Farmer A et al (2008) Wake-up call for British psychiatry. Br J Psychiatry 193:6–9
- Cuijpers P, Berking M, Andersson G, Quigley L, Kleiboer A, Dobson KS (2013) A meta-analysis of cognitive-behavioural therapy for adult depression, alone and in comparison with other treatments. Can J Psychiatry 58:376–385
- Cuijpers P, Smit F, Bohlmeijer E, Hollon SD, Andersson G (2010) Efficacy of cognitive-behavioural therapy and other psychological treatments for adult depression: meta-analytic study of publication bias. Br J Psychiatry 196:173–178
- Curtis-Barton MT, Eagles JM (2011) Factors that discourage medical students from pursuing a career in psychiatry. Psychiatrist 35:425–429
- de Hert M, Correll CU, Bobes J, Cetkovich-Bakmas M, Cohen D, Asai I, Detraux J, Gautam S, Moller HJ, Ndetei DM et al (2011) Physical illness in patients with severe mental disorders.
 I. Prevalence, impact of medications and disparities in health care. World Psychiatry 10:52–77
- 18. de Hert M, Dekker JM, Wood D, Kahl KG, Holt RI, Moller HJ (2009) Cardiovascular disease and diabetes in people with severe mental illness position statement from the European Psychiatric Association (EPA), supported by the European Association for the Study of Diabetes (EASD) and the European Society of Cardiology (ESC). Eur Psychiatry 24:412–424
- Department of Health (2005) New ways of working for psychiatrists: enhancing effective, person-centred services through new ways of working in multidisciplinary and multi-agency contexts. Department of Health, London
- DGPPN (2010) Nationale VersorgungsLeitlinie—Unipolare Depression. Springer, Berlin
- DGPPN (2014) Respect for self-determination and use of coercion in the treatment of mentally ill persons: an ethical position statement of the DGPPN. Nervenarzt 85:1419–1431
- 22. Doherty AM, Gaughran F (2014) The interface of physical and mental health. Soc Psychiatry Psychiatr Epidemiol 49:673–682
- Dörner K (1969) Bürger und Irre. Zur Sozialgeschichte und Wissenssoziologie der Psychiatrie. Europäische Verlagsanstalt. Europäische Verlagsanstalt, Frankfurt am Main
- Durand-Zaleski I, Scott J, Rouillon F, Leboyer M (2012) A first national survey of knowledge, attitudes and behaviours towards



- schizophrenia, bipolar disorders and autism in France. BMC Psychiatry 12:128
- Eisenberg L (2000) Is psychiatry more mindful or brainier than it was a decade ago? Br J Psychiatry 176:1–5
- 26. Evans-Lacko S, Corker E, Williams P, Henderson C, Thornicroft G (2014) Effect of the Time to Change anti-stigma campaign on trends in mental-illness-related public stigma among the English population in 2003–13: an analysis of survey data. Lancet Psychiatry 1:121–128
- 27. Falkai P (2011) A desperate search for biomarkers in schizophrenia. What is going wrong? World Psychiatry 10:38–39
- Farooq K, Lydall GJ, Malik A, Ndetei DM, Bhugra D (2014)
 Why medical students choose psychiatry—a 20 country cross-sectional survey. BMC Med Educ 14:12
- Fleury MJ, Imboua A, Aube D, Farand L (2012) Collaboration between general practitioners (GPs) and mental healthcare professionals within the context of reforms in Quebec. Ment Health Fam Med 9:77–90
- Flint J, Cuijpers P, Horder J, Koole SL, Munafo MR (2015) Is there an excess of significant findings in published studies of psychotherapy for depression? Psychol Med 45:439–446
- Foucault M (1961) Histoire de la Folie. Librairie Plon, Paris. English edition (1965): Madness and Civilization: A History of Insanity in the Age of Reason. Translated by Howard R. Pantheon Books, New York
- Fountoulakis KN, Hoschl C, Kasper S, Lopez-Ibor J, Moller HJ (2013) The media and intellectuals' response to medical publications: the antidepressants' case. Ann Gen Psychiatry 12:11
- Fountoulakis KN, Moller HJ (2014) Are antidepressants clinically useful? Conclusion of a decade of debate. World Psychiatry 13:201–202
- 34. Fountoulakis KN, Veroniki AA, Siamouli M, Moller HJ (2013) No role for initial severity on the efficacy of antidepressants: results of a multi-meta-analysis. Ann Gen Psychiatry 12:26
- Frankfurter Allgemeine Zeitung (2015) Wenn Psychopillen das Gehirn schrumpfen lassen. In: Frankfurter Allgemeine Zeitung, 26 January 2015
- Franx G, Huyser J, Koetsenruijter J, van der Feltz-Cornelis CM, Verhaak PF, Grol RP, Wensing M (2014) Implementing guidelines for depression on antidepressant prescribing in general practice: a quasi-experimental evaluation. BMC Fam Pract 15:35
- Friedrich B, Evans-Lacko S, London J, Rhydderch D, Henderson C, Thornicroft G (2013) Anti-stigma training for medical students: the Education Not Discrimination project. Br J Psychiatry Suppl 202:s89–s94
- Fusar-Poli P, Smieskova R, Kempton MJ, Ho BC, Andreasen NC, Borgwardt S (2013) Progressive brain changes in schizophrenia related to antipsychotic treatment? A meta-analysis of longitudinal MRI studies. Neurosci Biobehav Rev 37:1680–1691
- Gaebel W, Kowitz S, Fritze J, Zielasek J (2013) Use of health care services by people with mental illness: secondary data from three statutory health insurers and the German Statutory Pension Insurance Scheme. Dtsch Arztebl Int 110:799–808
- Gaebel W, Muijen M, Baumann AE, Bhugra D, Wasserman D, van der Gaag RJ, Heun R, Zielasek J (2014) EPA guidance on building trust in mental health services. Eur Psychiatry 29:83–100
- Gaebel W, Zielasek J (2011) Integrative etiopathogenetic models of psychotic disorders: methods, evidence and concepts. Schizophr Bull 37(Suppl 2):S5–S12
- Gaebel W, Zielasek J, Cleveland HR (2010) Psychiatry as a medical specialty: challenges and opportunities. World Psychiatry 9:36–38
- Gaebel W, Zielasek J, Cleveland HR (2013) Psychotic disorders in ICD-11. Asian J Psychiatr 6:263–265

- Gearing RE, Townsend L, Elkins J, El-Bassel N, Osterberg L (2014) Strategies to predict, measure, and improve psychosocial treatment adherence. Harv Rev Psychiatry 22:31–45
- Goffman E (1961) Asylums: Essays on the Social Situation of Mental Patients and Other Inmates Anchor Books. Garden City, NY
- Goffman E (1963) Stigma—notes on the management of spoiled identity. Simon and Schuster/Touchstone Books, New York
- Goldacre MJ, Fazel S, Smith F, Lambert T (2013) Choice and rejection of psychiatry as a career: surveys of UK medical graduates from 1974 to 2009. Br J Psychiatry 202:228–234
- Goodwin GM (2015) Public mental health: science or politics?
 World Psychiatry 14:3–4
- Hegerl U, Althaus D, Stefanek J (2003) Public attitudes towards treatment of depression: effects of an information campaign. Pharmacopsychiatry 36:288–291
- Hegerl U, Rummel-Kluge C, Varnik A, Arensman E, Koburger N (2013) Alliances against depression—A community based approach to target depression and to prevent suicidal behaviour. Neurosci Biobehav Rev 37:2404–2409
- Helmchen H (2013) Different conceptions of mental illness: consequences for the association with patients. Front Psychol 4:269
- Hoffmann-Richter U, Forrer F, Finzen A (2003) Schizophrenia in the German national paper Frankfurter Allgemeine Zeitung a didactic play. Psychiatr Prax 30:4–7
- 53. Hopkins J (2014) The demonisation of psychiatrists in fiction (and why real psychiatrists might want to do something about it). Psychiatr Bull 38:175–179
- Insel TR (2014) The NIMH Research Domain Criteria (RDoC) Project: precision medicine for psychiatry. Am J Psychiatry 171:395–397
- Insel TR (2010) Psychiatrists' relationships with pharmaceutical companies: part of the problem or part of the solution?
 JAMA 303:1192–1193
- Jablensky A (2010) Psychiatry in crisis? Back to fundamentals.
 World Psychiatry 9:29
- 57. Jablensky A, Waters F (2014) RDoC: a roadmap to pathogenesis? World Psychiatry 13:43–44
- Jorm AF (2000) Mental health literacy. Public knowledge and beliefs about mental disorders. Br J Psychiatry 177:396–401
- Kapczinski F, Passos IC (2015) Wet minds, dry minds, and the future of psychiatry as a science. Acta Psychiatr Scand 131:7–8
- Kasper S, Winkler D (2006) Addressing the limitations of the CATIE study. World J Biol Psychiatry 7:126–127
- Kassam A, Glozier N, Leese M, Loughran J, Thornicroft G (2011) A controlled trial of mental illness related stigma training for medical students. BMC Med Educ 11:51
- Katschnig H (2010) Are psychiatrists an endangered species?
 Observations on internal and external challenges to the profession. World Psychiatry 9:21–28
- Ke S, Lai J, Sun T, Yang MM, Wang JC, Austin J (2015) Healthy young minds: the effects of a 1-hour classroom workshop on mental illness stigma in high school students. Community Ment Health J 51:329–337
- Kirsch I (2009) Antidepressants and the placebo response. Epidemiol Psichiatr Soc 18:318–322
- Korszun A, Dinos S, Ahmed K, Bhui K (2012) Medical student attitudes about mental illness: does medical-school education reduce stigma? Acad Psychiatry 36:197–204
- Kowitz S, Zielasek J, Gaebel W (2014) Mental healthcare in Germany-current situation and perspectives. Dtsch Med Wochenschr 139:1249–1252
- Laux G (2011) Quo vadis, psychiatria. In: Möller HJ,
 Laux G, Kapfhammer P (eds) Psychiatrie, Psychosomatik,



- Psychotherapie Bd 1: Allgemeine Psychiatrie, 4th edn. Springer, Berlin
- Leucht S, Corves C, Arbter D, Engel RR, Li C, Davis JM (2009) Second-generation versus first-generation antipsychotic drugs for schizophrenia: a meta-analysis. Lancet 373:31–41
- Leucht S, Hierl S, Kissling W, Dold M, Davis JM (2012) Putting the efficacy of psychiatric and general medicine medication into perspective: review of meta-analyses. Br J Psychiatry 200:97–106
- Lieberman JA, Stroup TS, McEvoy JP, Swartz MS, Rosenheck RA, Perkins DO, Keefe RS, Davis SM, Davis CE, Lebowitz BD et al (2005) Effectiveness of antipsychotic drugs in patients with chronic schizophrenia. N Engl J Med 353:1209–1223
- Mack S, Jacobi F, Gerschler A, Strehle J, Hofler M, Busch MA, Maske UE, Hapke U, Seiffert I, Gaebel W et al (2014) Self-reported utilization of mental health services in the adult German population-evidence for unmet needs? Results of the DEGS1-Mental Health Module (DEGS1-MH). Int J Methods Psychiatr Res 23:289–303
- Maj M (2013) Adherence to psychiatric treatments and the public image of psychiatry. World Psychiatry 12:185–186
- Maj M (2014) Social neuroscience as an ideal basic science for psychiatry. World Psychiatry 13:105–106
- Maj M, Reed GM (2012) The ICD-11 classification of mood and anxiety disorders: background and options. World Psychiatry 11(Suppl 1)
- Mayer S, van der Gaag RJ, Dom G, Wassermann D, Gaebel W, Falkai P, Schule C (2014) European Psychiatric Association (EPA) guidance on post-graduate psychiatric training in Europe. Eur Psychiatry 29:101–106
- Mental and Physical Health Platform (2009) Mental and physical health charter. Bridging the gap between mental and physical health. Mental and Physical Health Platform, Brussels
- 77. Mitchell AJ, Vaze A, Rao S (2009) Clinical diagnosis of depression in primary care: a meta-analysis. Lancet 374:609–619
- Moller-Leimkuhler AM (2004) Why are stereotypes about mentally ill so resistant? Lessons from social psychology. Fortschr Neurol Psychiatr 72:36–44
- Moller-Leimkuhler AM, Dunkel R, Muller P (2002) Determinants of patient satisfaction: treatment and clinical factors, subjective concept of the illness and quality of life. Fortschr Neurol Psychiatr 70:410–417
- Moller HJ (2008) Do effectiveness ("real world") studies on antipsychotics tell us the real truth? Eur Arch Psychiatry Clin Neurosci 258:257–270
- Moller HJ et al (2008) Isn't the efficacy of antidepressants clinically relevant? A critical comment on the results of the metaanalysis by Kirsch et al. 2008. Eur Arch Psychiatry Clin Neurosci 258:451–455
- 82. Moller HJ (2014) The recommendations for a broad use of psychotherapy in the National (German) Treatment Guideline are in contrast to the real care situation of depressed outpatients in Germany. Psychopharmakotherapie 21:12–20
- 83. Moller HJ, Bandelow B, Bauer M, Hampel H, Herpertz SC, Soyka M, Barnikol UB, Lista S, Severus E, Maier W (2015) DSM-5 reviewed from different angles: goal attainment, rationality, use of evidence, consequences–part 1: general aspects and paradigmatic discussion of depressive disorders. Eur Arch Psychiatry Clin Neurosci 265:5–18
- 84. Moller HJ, Bandelow B, Bauer M, Hampel H, Herpertz SC, Soyka M, Barnikol UB, Lista S, Severus E, Maier W (2015) DSM-5 reviewed from different angles: goal attainment, rationality, use of evidence, consequences-part 2: bipolar disorders, schizophrenia spectrum disorders, anxiety disorders, obsessive-compulsive disorders, trauma- and stressor-related disorders, personality disorders, substance-related and addictive disorders,

- neurocognitive disorders. Eur Arch Psychiatry Clin Neurosci 265:87–106
- Moller HJ, Seemuller F, Schennach-Wolff R, Stubner S, Ruther E, Grohmann R (2014) History, background, concepts and current use of comedication and polypharmacy in psychiatry. Int J Neuropsychopharmacol 17:983–996
- Mossner R, Mikova O, Koutsilieri E, Saoud M, Ehlis AC, Muller N, Fallgatter AJ, Riederer P (2007) Consensus paper of the WFSBP Task Force on Biological Markers: biological markers in depression. World J Biol Psychiatry 8:141–174
- 87. Moynihan R, Heath I, Henry D (2002) Selling sickness: the pharmaceutical industry and disease mongering. BMJ 324:886–891
- 88. Mukherjee K, Maier M, Wessely S (2013) UK crisis in recruitment into psychiatric training. Psychiatrist 37:210–214
- Munk-Jorgensen P, Christiansen B (2015) Psychiatry generating comparative respect: Happy New Year 2015. Acta Psychiatr Scand 131:2–3
- Nakane Y, Jorm AF, Yoshioka K, Christensen H, Nakane H, Griffiths KM (2005) Public beliefs about causes and risk factors for mental disorders: a comparison of Japan and Australia. BMC Psychiatry 5:33
- Nutt DJ, Goodwin GM, Bhugra D, Fazel S, Lawrie S (2014)
 Attacks on antidepressants: sign of deep-seated stigma? Lancet Psychiatry 1:102–104
- 92. O'Brien A, Ashby GA, White S, Crame J (2015) What do general psychiatrists do? A question posed to medical students and the general population. J Ment Health 24:126–128
- Olafsdottir S, Pescosolido BA (2011) Constructing illness: how the public in eight Western nations respond to a clinical description of "schizophrenia". Soc Sci Med 73:929–938
- Oyebode F, Humphreys M (2011) The future of psychiatry. Br J Psychiatry 199:439–440
- Papish A, Kassam A, Modgill G, Vaz G, Zanussi L, Patten S (2013) Reducing the stigma of mental illness in undergraduate medical education: a randomized controlled trial. BMC Med Educ 13:141
- Pence BW, O'Donnell JK, Gaynes BN (2012) The depression treatment cascade in primary care: a public health perspective. Curr Psychiatry Rep 14:328–335
- Phelan JC (2002) Genetic bases of mental illness—a cure for stigma? Trends Neurosci 25:430–431
- 98. Phillips J, Frances A, Cerullo MA, Chardavoyne J, Decker HS, First MB, Ghaemi N, Greenberg G, Hinderliter AC, Kinghorn WA et al (2013) The six most essential questions in psychiatric diagnosis: a pluralogue part 3: issues of utility and alternative approaches in psychiatric diagnosis. Philos Ethics Humanit Med 7:9
- 99. Priebe S, Burns T, Craig TK (2013) The future of academic psychiatry may be social. Br J Psychiatry 202:319–320
- Royal College of Psychiatrists. Misconceptions about psychiatrists 'common' among public and medical students. Royal College of Psychiatrists, London. http://www.rcpsych.ac.uk/mediacentre/pressreleases2013/psychiatristsrole.aspx
- Rubin EH, Zorumski CF (2012) Perspective: upcoming paradigm shifts for psychiatry in clinical care, research, and education. Acad Med 87:261–265
- 102. Sartorius N, Gaebel W, Cleveland HR, Stuart H, Akiyama T, Arboleda-Florez J, Baumann AE, Gureje O, Jorge MR, Kastrup M et al (2010) WPA guidance on how to combat stigmatization of psychiatry and psychiatrists. World Psychiatry 9:131–144
- Schomerus G, Schwahn C, Holzinger A, Corrigan PW, Grabe HJ, Carta MG, Angermeyer MC (2012) Evolution of public attitudes about mental illness: a systematic review and meta-analysis. Acta Psychiatr Scand 125:440–452



- Schulze B (2007) Stigma and mental health professionals: a review of the evidence on an intricate relationship. Int Rev Psychiatry 19:137–155
- Sendt KV, Tracy DK, Bhattacharyya S (2015) A systematic review of factors influencing adherence to antipsychotic medication in schizophrenia-spectrum disorders. Psychiatry Res 225:14–30
- Sheenan KA (2009) Compulsory treatment in psychiatry. Curr Opin Psychiatry 22:582–586
- 107. Sollner W, Creed F (2007) European guidelines for training in consultation-liaison psychiatry and psychosomatics: report of the EACLPP Workgroup on Training in Consultation–Liaison Psychiatry and Psychosomatics. J Psychosom Res 62:501–509
- Sondergard L (2007) Recruitment problems in psychiatry: just a matter of more exposition? Acta Psychiatr Scand 116:235–237
- Stampfer H (2011) The recruitment problem in psychiatry: a critical commentary. Educ Res Perspect 38:1–19
- Stuart H, Sartorius N, Liinamaa T (2015) Images of psychiatry and psychiatrists. Acta Psychiatr Scand 131:21–28
- Stubbs A (2014) Reducing mental illness stigma in health care students and professionals: a review of the literature. Aust Psychiatry 22:579–584
- Szasz T (2009) Coercion as cure. A critical history of psychiatry. Transaction Publishers, Piscataway
- 113. Tandon R, Belmaker RH, Gattaz WF, Lopez-Ibor JJ Jr, Okasha A, Singh B, Stein DJ, Olie JP, Fleischhacker WW, Moeller HJ

- (2008) World Psychiatric Association Pharmacopsychiatry Section statement on comparative effectiveness of antipsychotics in the treatment of schizophrenia. Schizophr Res 100:20–38
- 114. Thornicroft G (2013) Premature death among people with mental illness. BMJ 346:f2969
- Thornicroft G (2008) Stigma and discrimination limit access to mental health care. Epidemiol Psichiatr Soc 17:14–19
- Totic S, Stojiljkovic D, Pavlovic Z, Zaric N, Zarkovic B, Malic L, Mihaljevic M, Jasovic-Gasic M, Maric NP (2012) Stigmatization of 'psychiatric label' by medical and non-medical students. Int J Soc Psychiatry 58:455–462
- Turner EH, Matthews AM, Linardatos E, Tell RA, Rosenthal R (2008) Selective publication of antidepressant trials and its influence on apparent efficacy. N Engl J Med 358:252–260
- 118. Verhaeghe M, Bracke P (2012) Associative stigma among mental health professionals: implications for professional and service user well-being. J Health Soc Behav 53:17–32
- Wolf M, Arolt V, Burian R, Diefenbacher A (2013) Psychiatric and psychosomatic consultation-liaison. An overview. Nervenarzt 84:639–647; quiz 648–639
- 120. Wood R, Wand AP (2014) The effectiveness of consultationliaison psychiatry in the general hospital setting: a systematic review. J Psychosom Res 76:175–192
- Zielasek J, Gaebel W (2008) Modern modularity and the road towards a modular psychiatry. Eur Arch Psychiatry Clin Neurosci 258(Suppl 5):60–65

