

## REVIEW

### The Stigma of Alcohol Dependence Compared with Other Mental Disorders: A Review of Population Studies

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**Abstract** — **Aims:** Stigma is likely to aggravate the severe medical and social consequences of alcohol dependence. We aim to explore the characteristics of the alcohol dependence stigma by comparing it with the stigma of other conditions. **Methods:** On the basis of a systematic literature search, we identified 17 representative population studies published before July 2010 that examine aspects of the stigma of alcoholism and simultaneously of other mental, medical or social conditions. Seven surveys were located in Europe, five in North America, three in New Zealand and one each in Brazil and Ethiopia, respectively. **Results:** Compared with people suffering from other, substance-unrelated mental disorders, alcohol-dependent persons are less frequently regarded as mentally ill, are held much more responsible for their condition, provoke more social rejection and more negative emotions, and they are at particular risk for structural discrimination. Only with regard to being a danger, they are perceived to be at a similarly negative level to that of people suffering from schizophrenia. **Conclusion:** Alcoholism is a particularly severely stigmatized mental disorder. Cultural differences are likely, but under-researched. We discuss possible reasons for the differences between the stigma of alcoholism and of other mental diseases and the consequences for targeted anti-stigma initiatives.

## INTRODUCTION

Alcohol dependence is both one of the most severe and most prevalent mental disorders. The World Health Organization estimates that 76.3 million people worldwide suffer from alcohol use disorders (WHO, 2004). About 4% of all deaths and 5% of all disability-adjusted life-years lost can be attributed to alcohol (Rehm *et al.*, 2009). Negative consequences of alcohol dependence are not restricted to physical health: alcoholism has profound negative effects on one's social behaviour, social interactions and social environment (Klingemann, 2001). The stigma of alcoholism is likely to aggravate these effects: it may hinder the seeking of professional and lay help, because people fear being labelled alcoholics and subsequently experiencing loss of status and discrimination. The stigma may thus contribute to social exclusion of those in particular need of social support (Room, 2005). Stigma may also produce structural discrimination against alcohol-dependent persons, for example, with regard to coverage of addiction treatment by private or public health insurance (Hanson, 1998). Seemingly, addressing the stigma of alcoholism would be a rewarding target to improve both the physical and social health of alcohol-dependent people. However, in psychiatric attitude research, the stigma of alcoholism has received considerably less attention than the stigma of other, substance-unrelated disorders (Schomerus *et al.*, 2010). Comparative studies examining attitudes towards persons with different mental disorders using identical methodology consistently show that public attitudes are illness specific (Angermeyer and Matschinger, 2003; Link *et al.*, 1999). In this review, we aim to explore the stigma of alcoholism as it has been elicited in population-based surveys. Specifically, to establish the particularities of the alcohol-dependence stigma, our interest is in

finding out how the stigma of alcoholism compares with the stigma of other mental disorders.

## METHODS

We conducted a systematic review of all representative population-based studies on public beliefs about mental disorders and attitudes towards people with mental illness that have appeared until 30 September 2010. Besides papers published in scientific journals or books, we included also documents published online and the so-called “grey literature”, i.e. studies not published in commercially available books or journals. There were no restrictions on language, provided the study was abstracted and indexed in one of the major literature databases (PubMed, PsychINFO and Web of Science). To detect all relevant studies, we took a stepwise approach according to the systematic literature review guidelines of the Centre for Reviews and Dissemination.

As a starting point, we conducted a literature search in PubMed, PsychINFO and Web of Science using the terms ('alcoholism' OR 'alcohol abuse' OR 'alcohol dependent' OR 'alcoholic' OR 'mental illness' OR 'mental disorder' OR 'schizophrenia' OR depression OR 'anxiety disorder' OR 'obsessive compulsive disorder' OR dementia OR 'Alzheimer's disease') AND (attitudes OR stigma OR 'mental health literacy' OR 'causal beliefs' OR 'causal attributions' OR stereotype OR prejudice OR “social distance”) AND (representative OR population). We then screened titles, abstracts and, where appropriate, the full text of all identified documents. All documents reporting on studies that met the following selection criteria were retained: first, the focus of the study was on the general public. Studies investigating beliefs or attitudes of particular subgroups such as consumers,

health professionals or students were excluded. Second, studies were based on representative population samples obtained either by random or quota sampling methods. This applied to 311 documents. We then carried out hand searches of the identified literature in the form of citation chasing and searched electronically for other relevant publications of the authors of all documents that had so far been identified. By this method, we detected another 168 documents that met our inclusion criteria. Finally, we contacted experts in the field of psychiatric attitude research and asked them about any relevant study not published in peer-reviewed journals or other relevant 'grey literature' known to them, resulting in an additional 25 documents. This search strategy yielded in total 504 documents, 96 of which were written in languages other than English. With these 504 documents, a full-text analysis was carried out, aided if necessary by translations obtained from native speakers, looking for studies examining attitudes towards both people with alcohol dependence and people with other mental disorders. Studies included in our review, thus, had to meet the following criteria: random population sample or quota sample, examination of attitudes towards persons with alcoholism and towards persons with at least one other condition, with identical instruments.

## RESULTS

We detected 33 relevant publications reporting on 17 population surveys. Seven surveys originated in Europe, five in North America, three in New Zealand and one each in Ethiopia and Brazil, respectively. Eleven surveys examined nationally representative samples, five studies regionally/locally representative samples and one study examined national representative samples from 32 European countries. Aspects of stigma examined in these studies included definition of alcoholism as mental illness, attribution of blame, the stereotypes of unpredictability and being dangerous, negative emotional reactions, desire for social distance and acceptance of structural discrimination. Table 1 gives an overview on the studies, publications and stigma-related topics examined in each study.

As summarized in Table 1, attitudes towards alcoholism are compared with attitudes towards many different mental, medical and social conditions. Since 13 of 17 surveys included comparisons with depression and schizophrenia, we pay particular attention to these conditions, aiming to establish overriding patterns of public attitudes towards alcoholism, depression and schizophrenia.

### *Alcohol dependence as a mental illness*

Table 2 shows that in three of four surveys addressing this question, alcoholism was less commonly regarded a mental illness than depression and schizophrenia: in a survey in the USA, 88% judged a vignette depicting someone with schizophrenia to represent a mental illness, 68% depression, but only 49% alcoholism (Link *et al.*, 1999). An even stronger gradient was found in New Zealand, where 95% classified schizophrenia a mental illness, 57% depression and 32% alcoholism (Ng *et al.*, 1995). Similar results were found in an online survey in Canada (Canadian Medical Association, 2008). A fourth population survey from the city of São

Paulo, Brazil, using vignettes of persons with different mental disorders, showed the status of alcoholism being similar to depression: for both conditions, only 19% of respondents agreed to their definition as mental illness, compared with 57% for schizophrenia. Compared with alcoholism, Alzheimer's disease (Brazil, 39%) or anorexia (New Zealand, 68%) were more frequently regarded a mental illness. Other syndromes of dependency (cocaine dependence, impulsive gambling) were judged similar to alcoholism (Blay and Peluso, 2008; Link *et al.*, 1999; Ng *et al.*, 1995; Peluso and Blay, 2008a, b, in press).

### *Blame*

Across all studies, alcohol-dependent patients are held much more responsible for their condition than people suffering from depression and schizophrenia (Table 2) or other, substance-unrelated mental disorders: in two studies conducted in the UK in 1998 and 2003, respectively, 60% and 54% stated that alcohol-dependent persons are themselves to blame for their problem, compared with 34/33% for eating disorders, and only 4–13% for depression, panic attacks, schizophrenia and dementia. Only drug-addicted persons were more frequently held responsible for their condition (68/60%; Crisp *et al.*, 2000, 2005). Similarly, while 85% perceived alcohol-dependent persons to be self-responsible in a survey in Germany, only 8–18% had this perception regarding Alzheimer's disease, schizophrenia and depression. Interestingly, also people suffering from behaviour-related medical conditions were considered less self-responsible: people suffering from myocardial infarction perceived by 45% and from diabetes perceived by 32% (Schomerus *et al.*, 2006a). In a vignette-based study in Germany in 1990, about three in four respondents considered lack of will power to be a cause of alcohol dependence, compared with one in two for schizophrenia and depression (Angermeyer *et al.*, 1992). Similarly, 'bad character' was considered much more frequently a cause for alcoholism than for depression and schizophrenia in surveys in the USA in 1996 (alcoholism 49%, depression 38% and schizophrenia 31%) and 2006 (alcoholism 65%, depression 32% and Schizophrenia 31%, Link *et al.*, 1999; Pescosolido *et al.*, 2010; Schnittker, 2008). Although attribution of personal responsibility was generally high in the Brazilian survey, it was nevertheless highest for alcoholism: 82% attributed alcohol dependence to 'weakness of character', compared with 72% for depression, 70% for schizophrenia and 64% for Alzheimer's disease (Blay and Peluso, 2008; Peluso and Blay, 2008a, b; Peluso *et al.*, 2008). So, with the probable exception of people addicted to illegal drugs, those suffering from alcohol dependence are generally held much more responsible for their condition than those suffering from other mental and medical disorders.

### *The stereotypes of unpredictability and being dangerous*

With regard to unpredictability and being dangerous, alcohol-dependent persons ranked similarly or worse than people suffering from schizophrenia, and much worse than people suffering from depression (Table 2). In the UK survey in 1998, 71% rated an alcoholic to be unpredictable, and 65% to be a danger to others. In both respects, alcohol-dependent people ranked just behind drug addicts and people with schizophrenia (who were considered unpredictable by 77%

Table 1. Overview of population-based, comparative studies on the stigma of alcoholism

Study #	Location	Year	Age	Response rate	n	Stimulus	Comparison with	Definition as mental illness	Blame	Unpredictability/ being dangerous	Emotional reactions	Desire for social distance	Approval of structural discrimination	Literature
1	Europe FRG	1990	18+	67.4	3098	Vignette label	S, D, psychiatric patients		X	X (psychiatric patients)	X	X	X	(Angermeyer and Matschinger, 1996, 1997; Angermeyer <i>et al.</i> , 1995a, b, 1992, 1998)
2	Germany	2001	18+	65.1	5025	Label	S, D, Alz, AIDS, Can, Cardiovasc. Dis, Diab, Rhe						X	(Beck <i>et al.</i> , 2003; Matschinger and Angermeyer, 2004)
3	Germany	2002	18+	?	2089	Label	S, D, DrA, AIDS, CR, LWE, RWE, Mus, foreign workers, Hom, J, G					X		(Beck <i>et al.</i> , 2005)
4	Germany	2004	18+	66.1	1012	Label	S, D, Alz, AIDS, Can, myocardial inf., Diab, Rhe		X			X	X	(Schomerus <i>et al.</i> , 2006a, b)
5	UK	1998	16+	67	1737	Label	S, D, Anx, Dem, ED, DrA		X	X				(Crisp <i>et al.</i> , 2000)
6	UK	2003	16+	65	1725	Label	S, D, Anx, Dem, ED, DrA		X	X				(Crisp <i>et al.</i> , 2005)
7	32 countries in Europe	1999/2000	18+	39.6–95.0	39797	Label	Emotionally unstable pers., DrA, AIDS, CR, different race, LWE, RWE, large families, Mus, Hom, J, G					X		(Halman, 2001)
8	Americas Canada	2008			2024	Label	S, D, MI, ED, Autism, Anx, DrA, Gam, burn out, smoking,	X				X (MI)		(Canadian Medical Association, 2008)
9	Midwestern City/USA	?	?	?	306	Label	Epi, blind pers.		X	X				(Ries, 1977)
10	USA	1996	21+	76.1	1444	Vignette	S, D, DrA, troubled pers.	X	X	X		X	X	(Kuppian and Carpiano, 2006; Link <i>et al.</i> , 1999; Martin <i>et al.</i> , 2000; Pescosolido <i>et al.</i> , 2000)
11	USA	2006	21+	71	1523	Vignette	S, D		X	X		X	X	(Pescosolido <i>et al.</i> , 2010; Schnitker, 2008)
12	USA	?	18–89	?	186	Vignette	D				X			(Wirth and Bodenhausen, 2009)
13	São Paulo/ Brazil	2002	18–65	–	500	Vignette	S, D, Alz	X	X	X	X			(Blay and Peluso, 2008, 2010; Peluso and Blay, 2008a, b, 2009, in press; Peluso <i>et al.</i> , 2008)
14	Other areas Anonymous town/New Zealand	?	?	73	263	Vignette	S, normal, neurotic	X				X		(Blizard, 1968, 1970)
15	Dunedin/New Zealand	1993	?	55	164	Label	S, D, Dem, ED, Gam, child molestation, homosexuality	X						(Ng <i>et al.</i> , 1995)
16	Anonymous region/New Zealand	?	18+	72.5	435	Vignette	S, D, substance dependence					X		(Marie and Miles, 2008)
17	Bahir Dar/ Ethiopia	?	?	?	450	Label	S, D, Anx, MR, Epi, tuberculosis, leprosy, polio					X		(Mulatu, 1999)

? no information provided; - quota sampling.

Alc, alcoholism; Alz, Alzheimer's disease; Anx, anxiety disorder; Can, cancer; CR, criminal record; D, depression; Dem, dementia; DrA, drug addiction; Diab, diabetes; ED, eating disorder; Epi, epilepsy; G, gypsies; Gam, gambling; Hom, homosexuals; J, Jews; LWE, left wing extremists; MI, mental illness; MR, mental retardation; Mus, muslim immigrants; Rhe, rheumatism; RWE, right wing extremists; S, schizophrenia.

Table 2. Synopsis of results of studies comparing the stigma of alcoholism, depression and schizophrenia

Aspect of stigma	Result: number of studies (n)	Study # (Table 1)
Definition as mental illness	Alk < Dep < Schiz: 3	8, 10, 15
	Alk ≈ Dep < Schiz: 1	13
Blame	Alk > Dep > Schiz: 4	4, 5, 6, 10
	Alk > Dep ≈ Schiz: 3	1, 11, 13
Unpredictability/being dangerous	Alk > Schiz > Dep: 3	10, 11, 13
	Alk ≈ Schiz > Dep: 2	5, 6
Negative emotional reactions	Alk > Schiz > Dep: 2	1, 13
Desire for social distance	Alk > Schiz > Dep: 6	1, 3, 4, 10, 11, 16
	Schiz > Alk > Dep: 1	17
Approval of structural discrimination	Alk > Dep > Schiz: 2	2, 4
	Schiz > Alk > Dep: 2	10, 11

and dangerous by 71%), and were rated less favourably than were people with severe depression (56/23%), panic disorder, eating disorder or dementia (Crisp *et al.*, 2000). No significant changes of the public's view on alcohol-dependent persons were observed 5 years later (Crisp *et al.*, 2005). In the USA national survey in 1996, 71% of respondents considered it likely for an alcohol-dependent person to hurt others, placing alcoholism between cocaine dependency (87%) and schizophrenia (61%) in terms of being dangerous while people with depression were rated considerably less dangerous (33%; Link *et al.*, 1999). No significant change had occurred 10 years later, when 69% of respondents considered an alcohol-dependent person to be dangerous (Pescosolido *et al.*, 2010; Schnittker, 2008). In São Paulo, Brazil, even 81% of respondents perceived alcohol-dependent persons as dangerous, compared with 74% for schizophrenia and 57% for depression (Peluso and Blay, 2008a, b, in press). In Germany, two-thirds of the respondents rated alcohol-dependent persons to be unpredictable and one-third considered them dangerous, and in both respects, they were rated less favourably than 'psychiatric patients' (Angermeyer *et al.*, 1995a). Thus in the public opinion, there seems to be a cluster of dangerous conditions like alcohol/substance addiction and schizophrenia, and less dangerous diseases like depression, anxiety disorders, eating disorder and dementia.

#### Emotional reactions

Emotional reactions towards alcohol-dependent persons were examined only in two comparative studies, but these studies from two different national backgrounds show a consistent picture of considerable differences with regard to emotional reactions towards people with other mental disorders. In a survey in Germany in 1990, alcohol-dependent people evoked more irritation, anger and repulsion than people with schizophrenia or depression, but less empathy, understanding, pity and desire to help (Angermeyer *et al.*, 1992). Similarly, in São Paulo, Brazil, they provoked more fear, irritation and indifference than persons suffering from schizophrenia, depression or Alzheimer's disease, but less friendliness and warmth. However, not all differences were negative: in São Paulo, more respondents felt comparatively more pity for a person suffering from alcohol dependence (Blay and Peluso, 2010; Peluso and Blay, 2008a, b, in press).

#### Desire for social distance

Table 2 shows that six of studies found a similar rank order of rejection, with alcoholism being rejected most, followed

by schizophrenia and depression. A German survey in 1990 examined reactions to an unlabelled case vignette of an alcohol-dependent person. Overall, the desire for social distance was stronger towards alcohol-dependent persons than towards persons with schizophrenia, and much stronger than towards people suffering from depression, narcissistic personality disorder and panic disorder (Angermeyer and Matschinger, 1996, 1997). Another German study enquired about the willingness to 'have as a neighbour' someone with alcoholism, depression and schizophrenia, and showed that alcohol-dependent persons were rejected by 60%, persons with schizophrenia by 37% and depressed persons by 19% (Beck *et al.*, 2005). The same pattern of social distance was observed in the 1996 USA national survey. Respondents rejected an alcohol-dependent person more strongly than someone with schizophrenia or depression, second only to the rejection of someone addicted to drugs (Link *et al.*, 1999). The follow-up survey in 2006 did not reveal any changes in this respect (Pescosolido *et al.*, 2010; Schnittker, 2008). This 'rank order' of social distance was also found in New Zealand before 1970, where the strongest desire for social distance was expressed towards case vignettes depicting chronic schizophrenia and alcoholism, and considerably less towards simple schizophrenia or neurosis (Blizard, 1970). In a postal survey in New Zealand, ~30 years later, respondents were more willing to engage in a relationship with someone suffering from depression than with someone with schizophrenia, alcohol abuse or substance dependence (Marie and Miles, 2008).

Four studies included comparisons with social minorities or to people suffering from medical diseases. The European Values Study examined the desire for social distance towards a 'heavy drinker' in 32 European countries in 1999–2000. It presented respondents with a list of 12 minority groups and asked them to 'sort out any that you would not like to have as neighbours'. Overall, 60% of respondents selected 'heavy drinkers'; only drug addicts were rejected more strongly (by 68%); next were the Gypsies (40%) and then right wing extremists (37%). Rejection of heavy drinkers ranged from 32% in Luxembourg to 91% in Hungary (median: 59%), being generally higher in Eastern European countries (Halman, 2001). A survey conducted in 2004 in Germany compared the desire for social distance towards four mental diseases (alcoholism, schizophrenia, depression and Alzheimer's disease) and five medical diseases (cancer, myocardial infarction, AIDS, diabetes and rheumatism) by asking whether respondents would be willing to rent a room to someone suffering from the disease. Again, rejection was the



strongest towards alcohol-dependent persons (78%), followed by schizophrenia (64%), Alzheimer's disease (53%) and depression (42%). With the exception of AIDS (33%), people suffering from medical diseases were rejected by <10% (Schomerus *et al.*, 2006a).

In the USA, the first population study to employ a measure of social distance with regard to alcohol-dependent people was published by Ries in 1977, who reported results of a survey in an Upper Midwest town. The desire for social distance was considerably stronger towards alcohol-dependent persons than towards someone with epilepsy or who was blind. There was no relation between the view that people were self-responsible for their condition and the desire for social distance (Ries, 1977).

Thus again, alcohol-dependent persons, together with persons suffering from other addictions, are rejected considerably more strongly than those suffering from substance-unrelated mental disorders or medical disorders, or members of other minority groups. This seems to be, however, a culture-dependent phenomenon: the Ethiopian survey in the city of Bahir Dar in north-western Ethiopia examined the desire for social distance towards persons suffering from various mental and medical diseases. Patients with poliomyelitic paralysis were most likely to be accepted, followed by patients with depression and anxiety disorder; next were patients with mental retardation, epilepsy and alcoholism, then those with tuberculosis, and the least likely to be accepted were patients with schizophrenia and leprosy (Mulatu, 1999).

#### *Approval of structural discrimination against alcohol-dependent persons*

In Europe, two German studies addressed acceptance of structural discrimination against alcohol-dependent persons. In 2001, respondents of a national survey in Germany were asked to select from a list of four mental and five medical diseases those three conditions where 'financial means for treatment could best be saved'. Alcoholism was named most frequently (by 78%), followed by depression (37%), rheumatism (34%), diabetes (27%), and schizophrenia (15%) (Beck *et al.*, 2003; Matschinger and Angermeyer, 2004). Conversely, when asked to select those three conditions where 'financial means should on no account be shortened', alcoholism was chosen least frequently, followed by depression and schizophrenia. Preferences for public funding of research for the nine different conditions followed the same pattern, identifying alcoholism as the illness on which research funds should not be spent first or should rather not be spent at all (Beck *et al.*, 2003). These findings were replicated in 2004. In this study, the choice of alcoholism for financial cuts was (among other factors) related to the desire for social distance towards an alcohol-dependent person, while exclusion of alcoholism from financial cuts was inversely related to perceived personal responsibility of those affected (Schomerus *et al.*, 2006a, b).

Another aspect of structural discrimination, compulsory treatment, was examined in the 1996 USA survey. Thirty nine per cent of respondents approved of compulsory outpatient treatment, 25% endorsed compulsory medication and 41% supported compulsory hospital treatment for people suffering from alcohol dependence (Pescosolido *et al.*, 1999,

2000). Ten years later, support for legal coercion had not changed significantly (Schnittker, 2008). In both surveys, support for legal coercion was higher for schizophrenia, but lower for depression.

## DISCUSSION

Results of our comparative review of population studies on the stigma of alcoholism and other mental disorders show that across all studies included, and across most of the aspects of stigmatization examined, people suffering from alcohol dependence (and from other addictions) are particularly severely stigmatized. They are less frequently regarded as mentally ill, they are held much more responsible for their condition, they provoke more social rejection and more negative emotions and they are at a particular risk of being structurally discriminated against. Only with regard to being dangerous, they are perceived similarly negative as people suffering from schizophrenia, and support for legal coercion in the United States was also stronger regarding schizophrenia. Cultural differences are apparent from the few studies not conducted in western industrialized countries: while negative attitudes surfaced more frequently regarding all conditions in São Paulo, Brazil, this did not alter the general picture of a particularly strong stigmatization of alcohol-dependent persons. The local survey in Ethiopia, however, showed people suffering from leprosy, schizophrenia and tuberculosis being rejected considerably more strongly. Two studies (from the UK and the USA) examined time trends in public attitudes, both finding very little change in negative attitudes towards alcohol-dependent persons.

Our review illustrates the differences that exist regarding the stigma of various mental disorders. To arrive at a valid model for the stigma of alcoholism, which is a precondition for effective anti-stigma interventions, the differences between the stigma of alcoholism and the stigma of other mental diseases need to be conceptualized. Recently, USA sociologist Jo Phelan and co-workers brought forward a hypothetical framework that offers a clear distinction between the stigma of other mental diseases like schizophrenia, and the stigma of alcoholism. Instead of focusing on the causes of the stigma, they reflect on its purpose (Phelan *et al.*, 2008). Referring to evolutionary psychology, they argue that those mental diseases presenting as frightening, disturbing but involuntary behaviour (like schizophrenia) are probably stigmatized to avoid contraction of a disease. In contrast, in those diseases presenting as a deviant but voluntary behaviour (like substance abuse and dependence), the purpose of stigmatization could be enforcement of social norms (Phelan *et al.*, 2008). 'Here, the function of stigma and prejudice may be to make the deviant conform and rejoin the in-group (...), or it may be to clarify for other group members the boundaries for acceptable behaviour and identity and the consequences for non-conformity' (Phelan *et al.*, 2008, p. 362). At least the first presumption of this hypothesis is mirrored by our findings. While negative behaviour (being dangerous or unpredictable) is perceived similarly in alcoholism and schizophrenia, the perceived reasons for this behaviour differ: schizophrenia is commonly regarded as an illness with low personal responsibility of

those affected; in contrast alcoholism is seen as a voluntary condition, and many do not regard it an illness.

Seen from a perspective of purpose, the question arises whether stigmatization of alcoholism could not simply represent a rational, successful strategy to improve public health, forcing people to cut down their drinking to avoid stigmatization. This has been controversially discussed for other health-related and increasingly stigmatized behaviours like smoking (Bayer, 2008; Burris, 2008). Drinking *per se*, however, is not stigmatized. On the contrary, drinking alcohol is a social behaviour that is often associated with inclusion in a social grouping; it may even be a signal of power and status (Room, 2005), and often, even heavy drinking is socially accepted behaviour, examples are wedding receptions, business meetings and parties. Thus when a person's drinking behaviour violates these norms and evokes stigmatization, the drinking problem has presumably become quite severe. At this point, it is probably too late to prevent addiction, and a potentially preventive effect of the stigma of alcoholism is at least questionable. Rather, stigma could be quite a dysfunctional way of pursuing the goal of keeping someone within the in-group of those able to control their drinking. There is, for example, evidence that self-stigma in alcohol-dependent persons, i.e. the internalization of negative public stereotypes, is associated with lower drinking-refusal self-efficacy and thus may ultimately hinder sobriety (Schomerus *et al.*, *in press*). It is also possible (but so far not empirically proven) that public stigma increases secrecy and impedes the seeking of help for alcoholism, and in this way, prolongs and aggravates the course of the disease.

A central part of most conceptualizations of mental illness stigma are negative, misinformed stereotypes (Corrigan and Watson, 2002; Link and Phelan, 2001; Thornicroft *et al.*, 2007). Many negative stereotypes about alcohol-dependent people are indeed misinformed: the stereotype of being weak-willed, for example, cannot be reasonably held up when comparing lifestyle changes and treatment adherence in alcoholism with other chronic medical conditions like diabetes or hypertension, where such changes do not occur more frequently (McLellan *et al.*, 2000). The stereotype of incurability ignores high spontaneous remission rates found in population-based studies of alcohol dependence (Bischof *et al.*, 2005). Some negative stereotypes like being dangerous or unpredictable, however, cannot simply be rejected as being wrong. For instance, drunken driving and alcohol-related domestic violence are serious and very real societal problems. But it is probably misleading to discuss the amount of 'truth' of these stereotypes. Stereotypes are generalizations by definition, and we would argue that in the case of alcoholism, even if they apply to some (under certain circumstances, for example, intoxication), they hurt many more, particularly those struggling to recover from their illness. Affected individuals have a right to be judged by their personal behaviour, not by the stereotypes attached to a diagnostic label. The goal of combating the stigma of alcoholism should not be to create a 'better', positive but similarly stereotypical, image of alcohol-dependent persons, but to give them a chance to be seen as individuals fighting a severe disorder and potentially changing their behaviour and recovering from their illness. From these considerations, possible targets of anti-stigma initiatives emerge. There are some stereotypes that need to be challenged, for example

alcohol-dependent people being weak-willed or incurable. Possibly, however, public campaigns should not pay too much attention to the question 'how they really are'. Instead, they should focus on 'what they really need'. Here, the social purpose of the stigma of alcoholism can directly be addressed: to recover from alcohol dependence, people need personal strength and help from others. A stigma is downright contrary to these needs, because it weakens and isolates those affected, and it thus aggravates a problem it was probably intended to control. Anti-stigma campaigns about alcoholism have to acknowledge the legitimate interest in social norms that may drive alcohol-related stigma. They should, however, point out that stigma is likely to be a dysfunctional way of pursuing the goal of keeping someone within the in-group of those able to control their drinking. To further prove this point by empirical studies would be a rewarding and necessary undertaking for stigma research.

Our review also identifies major gaps in our knowledge on the stigma of alcoholism. First, looking at the potential consequences of stigma, there is very little evidence on the effects the stigma of alcoholism has on the life and well being of those affected. Second, on a descriptive level, we found only one international, cross-cultural comparison study of public attitudes towards alcoholism, the European Value Study, which employed one single item on the desire for social distance towards 'heavy drinkers' and showed considerable national differences roughly following an East-West gradient of stigmatization. Taken together with the results from Ethiopia, a country with a low per capita alcohol consumption (Rehm *et al.*, 2009), which depict alcoholism as a comparatively less stigmatized condition there, the question arises whether alcoholism may be generally less stigmatized in societies with lower alcohol consumption like many Islamic countries or India (Rehm *et al.*, 2009), or to what extent the stigma of alcoholism depends on cultural belief systems about health and illness in general (Mulatu, 1999). Another area where we found only a small number of studies concerns the negative emotional reactions towards alcohol-dependent persons. Further studies are needed to complete our knowledge on public attitudes towards alcoholism in this respect.

Finally, the limitations of our study need to be acknowledged. We cannot rule out that studies not indexed in one of the major English language databases PubMed, PsychINFO and Web of Science escaped our attention. We tried to overcome the dominance of English scientific literature by additionally asking international experts on psychiatric attitude research about any studies they were aware of, and by careful citation tracking within the literature we found. In fact, 96 of the 504 articles resulting from our systematic literature search were written in languages other than English. A second limitation is the descriptive approach we took. Since studies used different stimuli (label vs. vignette) and different answer formats (for example, including 'do not know' and/or neutral answer possibilities or not), we judged it inappropriate to calculate the means across different studies. The comparison of frequencies within studies across different conditions is not affected by these differences, because all studies used methods consistently for all the conditions they examined.

In summary, our review shows that alcoholism is a particularly severely stigmatized condition, which is heavily

associated with a notion of blame. Theoretical considerations suggest that enforcement of social norms is at the core of the stigma of alcoholism, but evidence on this or any other theoretical model is sparse. Targeted anti-stigma initiatives need to reflect these particularities of the stigma of alcoholism.

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