Self-stigma in Serious Mental Illness: A Systematic Review of Frequency, Correlates, and Consequences

Julien Dubreucq*,[1–3],[○], Julien Plasse[4,5], and Nicolas Franck[1,5,6]

[1]Centre de Neurosciences Cognitive, UMR 5229, CNRS & Université Lyon 1, Lyon, France; [2]Centre référent de réhabilitation psychosociale et de Remédiation Cognitive (C3R), Centre Hospitalier Alpes Isère, Grenoble, France; [3]Fondation FondaMental, Créteil, France; [4]Réseau Handicap Psychique, Grenoble, France; [5]Centre Ressource de Réhabilitation Psychosociale et de Remédiation cognitive, Centre Hospitalier Le Vinatier, Bron, France; [6]Pôle Centre Rive Gauche, Centre Hospitalier Le Vinatier, Bron, France

*To whom correspondence should be addressed; Centre référent de réhabilitation psychosociale et de Remédiation Cognitive (C3R), CH Alpes Isère, 1 place du Conseil National de la Résistance, 38400 Saint Martin d'Hères, France; tel: +33-4-56-58-88-00, e-mail: jdubreucq@ch-alpes-isere.fr

Self-stigma is associated with poor clinical and functional outcomes in Serious Mental Illness (SMI). There has been no review of self-stigma frequency and correlates in different cultural and geographic areas and SMI. The objectives of the present study were: (1) to review the frequency, correlates, and consequences of self-stigma in individuals with SMI; (2) to compare self-stigma in different geographical areas and to review its potential association with cultural factors; (3) to evaluate the strengths and limitations of the current body of evidence to guide future research. A systematic electronic database search (PubMed, Web of Science, PsycINFO, Scopus, and Ovid SP Cumulative Index to Nursing and Allied Health Literature [CINAHL]) following PRISMA guidelines, was conducted on the frequency, correlates, and consequences of self-stigma in SMI. Out of 272 articles, 80 (29.4%) reported on the frequency of self-stigma (_n_ = 25 458), 241 (88.6%) on cross-sectional correlates of self-stigma and 41 (15.0%) on the longitudinal correlates and consequences of self-stigma. On average, 31.3% of SMI patients reported high self-stigma. The highest frequency was in South-East Asia (39.7%) and the Middle East (39%). Sociodemographic and illness-related predictors yielded mixed results. Perceived and experienced stigma—including from mental health providers—predicted self-stigma, which supports the need to develop anti-stigma campaigns and recovery-oriented practices. Increased transition to psychosis and poor clinical and functional outcomes are both associated with self-stigma. Psychiatric rehabilitation and recovery-oriented early interventions could reduce self-stigma and should be better integrated into public policy.

Key words: self-stigma/serious mental illness/prevalence /correlates/psychiatric rehabilitation

Introduction

For a long time, research on stigma in psychiatric disorders focused on public stigma, or the endorsement of negative beliefs and discriminating attitudes towards individuals by the general population. Over the last two decades, attention has shifted towards the effects of stigma on individuals with Serious Mental Illness (SMI). According to Link and Phelan,[1] stigma involves "elements of labeling, stereotyping, separation, status loss, and discrimination" that "co-occur in a power situation that allows the components of stigma to unfold." The effects of stigma on individuals include perceived, experienced, anticipated, and self-stigma. Perceived stigma is defined as one's beliefs about the attitudes of the general public towards people with SMI.[2] Experienced stigma refers to people with SMI's experience of discrimination.[3] Anticipated stigma—or the expectation that a person will be discriminated against because of their SMI—can occur even if the person has no previous experience of discrimination and contributes to social withdrawal and self-stigma.[3] Self-stigma— or internalized stigma—describes the transformation process wherein a person's previous social identity (defined by social roles such as son, brother, sister, friend, employee, or potential partner) is progressively replaced by a devalued and stigmatized view of oneself, known as "illness identity."[4] Self-stigma occurs when a person moves beyond mere awareness of public stigma and actually agrees with it and applies it to themself.[2] Stigma resistance is defined as a person's ability to deflect or challenge stigmatizing beliefs.[5,6]

There is a growing body of evidence—including meta-analyses—on the effects of self-stigma on people with SMI.[7–12] In a meta-analysis of 127 articles, Livingston

and Boyd[7] reported that most studies were conducted in Europe or North America (77.5%), and that schizophrenia was the most common diagnosis (54.3%). Self-stigma is frequent in Europe (41.7% of 1229 participants with schizophrenia and 21.7% of 1182 participants with mood disorders[9,10]) and North America (36.1% of 144 people with SMI[13]). Less is known about self-stigma in other geographic areas. The level of self-stigma might vary according to cultural factors (eg, causal attributions of mental illness[14]) and sociopolitical ideology.[15] According to Yang,[14] stigma affects "what matters most" in a local social world, by threatening one's capacity to meet social expectations (eg, the ability to engage in key life activities such as work or marriage[14,16]) and the whole family's moral standing and socioeconomic status. Self-stigma might be more common in non-Western countries than in Western countries but this remains unproven.

Compared with those with nonpsychotic disorders, people at risk of psychosis face higher levels of public stigma that can lead to self-stigma.[17,18] People with BPD are prone to self-criticism and feelings of shame that can make them more vulnerable to self-stigma.[19] They face high levels of stigma, not only from the general public but also from mental health professionals.[20] Gerlinger[8] reported in a systematic review on stigma in schizophrenia the lack of studies comparing stigma at different stages of illness. It is still unclear whether self-stigma is greater in cases of prolonged psychosis compared with early psychosis, at-risk stages, or other SMI diagnoses.

To date, there have been no literature reviews comparing self-stigma frequency and correlates in different geographical and cultural areas (Europe, North America, South America, Middle East, South Asia, South-East Asia, and Oceania). Similarly, to our knowledge, no literature review has been conducted comparing internalized stigma in at-risk stages, schizophrenia, BD, MDD, BPD, and anxiety disorders. Self-stigma was negatively associated with self-esteem, self-efficacy, quality of life (QoL), and clinical and functional outcomes.[7] However, it is difficult to disentangle the specific effects of self-stigma, as measures of perceived or experienced stigma are often used to assess the correlates of self-stigma (43.9% of the 127 studies[7]). Most studies were cross-sectional (86.7% of 127 studies[7]). The longitudinal effects of self-stigma remain largely unknown. Several interventions (combinations of psychoeducation and cognitive restructuring in most cases, making empowered decisions about disclosure in others) have been designed to reduce self-stigma and its impact on patients' outcomes.[21] Psychiatric rehabilitation brings together a wide range of recovery-oriented interventions.[22] Psychiatric rehabilitation could indirectly reduce self-stigma (eg, through improved psychiatric symptoms, self-esteem, cognitive, social, and

vocational functioning) although this remains to be investigated. However, the use of psychiatric rehabilitation services also carries the risk of increased labeling and self-stigma.[23,24]

In summary, three reviews have been conducted on self-stigma since 2010, in schizophrenia[8] and BD.[11,12] One meta-analysis investigated the correlates of stigma resistance in SMI.[6] To our knowledge, there has been no review of self-stigma frequency and correlates in different cultural and geographic areas and for different SMI conditions; nor any specific reviews of self-stigma, excluding explicitly perceived or experienced stigma. The effects of nonspecific recovery-oriented practices on self-stigma remain unknown. Based on the literature, we would expect to find a higher frequency of self-stigma in Eastern countries compared with Western countries. We made the hypotheses that cultural factors would influence self-stigma and that self-stigma would be associated with poor recovery-related outcomes. The present review has three objectives: (1) to review the frequency, correlates, and consequences of self-stigma in individuals with SMI; (2) to compare self-stigma in different geographical areas and to review its potential association with cultural factors; (3) to evaluate the strengths and limitations of the current body of evidence to guide future research.

Methods

A stepwise systematic literature review (PRISMA guidelines)[25] was conducted by searching PubMed, Medline, Web of Science, PsycINFO, the Scopus citation index, and Ovid SP Cumulative Index to Nursing and Allied Health Literature (CINAHL) for published, peer-reviewed articles using the following keywords: "schizophrenia" / "bipolar disorder" / "borderline personality disorder" / "major depression" / "depression" / "anxiety disorder" / "serious mental illness" AND "stigma" / "self-stigma" / "internalized stigma"/ "internalised stigma." No time restriction was set. Only published articles in English or French were included in the review. The reference list of three meta-analyses[6,7,26] and three literature reviews[8,11,12] on stigma and schizophrenia or BD were screened for additional relevant articles. To be included in this review articles had to meet all of the following criteria: (1) report explicitly on self-stigma (ie, articles on public stigma or using measures of perceived or experienced stigma were excluded); (2) concern a diagnosis of schizophrenia, bipolar disorder, borderline personality disorder, major depression or anxiety disorders; (3) provide quantitative data on the prevalence, correlates, or consequences of internalized stigma or stigma resistance. The first author applied the eligibility criteria and screened the records to select the included studies. The last author reviewed each decision. Disputed items were solved through discussion and by reading the

article in detail to reach a final decision. For each study, we extracted the following information: general information (author, year of publication, country, design, population considered, setting, total number of participants, mean age, or age range), outcome measure (scale/items used to measure self-stigma, reliability), the main findings, and variables relating to quality assessment (see supplementary table 2 for the detailed characteristics of the included studies). Quality assessment was performed using the Systematic Appraisal of Quality in Observational Research (SAQOR) tool. This tool comprises six domains (sample, control/comparison group, exposure/outcome measurements, follow-up, confounders, and reporting of data[27]) and has been adapted for cross-cultural psychiatric epidemiology studies.[28] An overall quality score (high, moderate, or low) was determined based on adequacy in the six domains. Means and percentages were weighted for the number of cases per study to obtain prevalence data. Derived weighted means by geographical area and pooled standard deviations were calculated. One-way ANOVA was conducted from these summary data and post hoc pairwise test comparisons were computed using the Tukey–Kramer method. Weighted scores were calculated using proportions of rating scale scores. The frequency of self-stigma is often measured using the Internalized Stigma of Mental Illness Scale.[29] A score above the midpoint indicates a moderate to high level of self-stigma.[9,29] This choice was made for practical reasons (ie, facilitating comparisons between the studies) as there is no valid cutoff for measuring self-stigma. Stigma resistance is often measured using the ISMI stigma resistance subscale, which shows variable internal consistency (0.56 in Firmin et al meta-analysis[6]). Only the studies reporting internal consistency of above 0.50 were considered when extracting the correlates of stigma resistance. The study protocol was registered on the PROSPERO database on July 4, 2019 (ID 141282).

Results

Our search on July 5, 2019 found 3215 articles on PubMed and 11 472 on Web of Science. It was completed by searching PsycINFO, the Scopus citation index, and Ovid SP CINAHL on March 25, 2020 then updated on April 16, 2020. The search was completed on August 22, 2020 using the additional terms "psychosis," "depression," "internalized stigma," and "internalised stigma." This resulted in 5371 supplementary articles. After manually removing all duplicates, there were 4250 remaining references. Based on their titles and abstracts, 3811 articles were excluded for lack of relevance. Most of these articles focused on public stigma, perceived or experienced stigma, or self-stigma in other discriminated populations. Our search strategy yielded 429 full-text articles. After conducting a full-text analysis of all these articles and excluding those which did not meet the inclusion criteria, we ended up with 272 relevant articles

(figure 1). See supplementary table 5 for the list of the excluded studies.

The 272 articles included were characterized by the heterogeneity of the samples, methods, scales, and reported outcomes. Most were published after 2010 (244 studies; 89.7%) and used cross-sectional designs (231 studies; 84.9%) with only 41 studies (15.1%) reporting longitudinal outcomes. A total of 89 (95 studies (34.9%) were conducted in Europe, 76 (27.9%) in North America, 44 in South-East Asia (16.2%), 24 (8.8%) in the Middle East, 13 (4.8%) in Africa, 10 in South Asia (3.7%), 4 in South America (1.5%), 4 in Oceania (1.5%), and 2 studies (0.7%) compared internalized stigma in different geographical areas (see supplementary table 1 for the geographical distribution of the included studies).[30,31] Most studies included outpatients (211 studies, 77.6%). A total of 30 studies (11.3%) were conducted in a psychiatric rehabilitation context, 5 studies (1.8%) in consumer-operated service programs or advocacy groups and 6 studies (2.2%) in prison settings.

A total of 114 studies (41.9%) concerned schizophrenia, 14 (5.1%) BD, 13 (4.8%) MDD, and 13 (4.8%) at-risk stages or first episode psychosis, 2 (0.7%) anxiety disorders and 1 obsessive-compulsive disorder (0.4%). A total of 115 studies (42.3%) looked at SMI. There were large variations in the definition of SMI. Twenty-five studies (9.6%) defined SMI as schizophrenia, BD, or MDD. Fifty-four studies (20%) used a broad definition of SMI and included participants with anxiety disorders (AD, $n = 25$), obsessive-compulsive disorder ($n = 11$), and personality disorders (13 studies). Twelve studies (4.6%) investigated self-stigma in schizophrenia and BD ($n = 6$), schizophrenia and MDD ($n = 1$), mood disorders ($n = 2$), schizophrenia and AD ($n = 1$), AD and MDD ($n = 1$), and BPD and social phobia ($n = 1$). Twenty-four studies (8.1%) did not specify the different forms of SMI. Most studies included young (18–34 years old; 50 studies [18.4%]) or middle-aged participants (35–50 years old; 185 studies [68%]). See supplementary table 6 for the characteristics of studies that included people less than 18 years old. One hundred and ninety-two studies (70.6%) used the Internalized Stigma of Mental Illness[29] scale to measure internalized stigma and 33 studies (12.1%) the Self-Stigma of Mental Illness Scale[32] (SSMI). Forty-seven studies (17.3%) measured self-stigma with other scales. Most of the instruments used to measure self-stigma in non-Western countries were adaptations of scales designed in Europe or North America ($n = 74$; 80%). The quality ratings of the included studies obtained using SAQOR[27] ranged from high to moderate (respectively, 57.7% and 42.3%). The results are shown in table 1.

Frequency of Self-stigma

Eighty articles (29.4%) reported data on self-stigma extent in SMI, or on the proportion of individuals with moderate
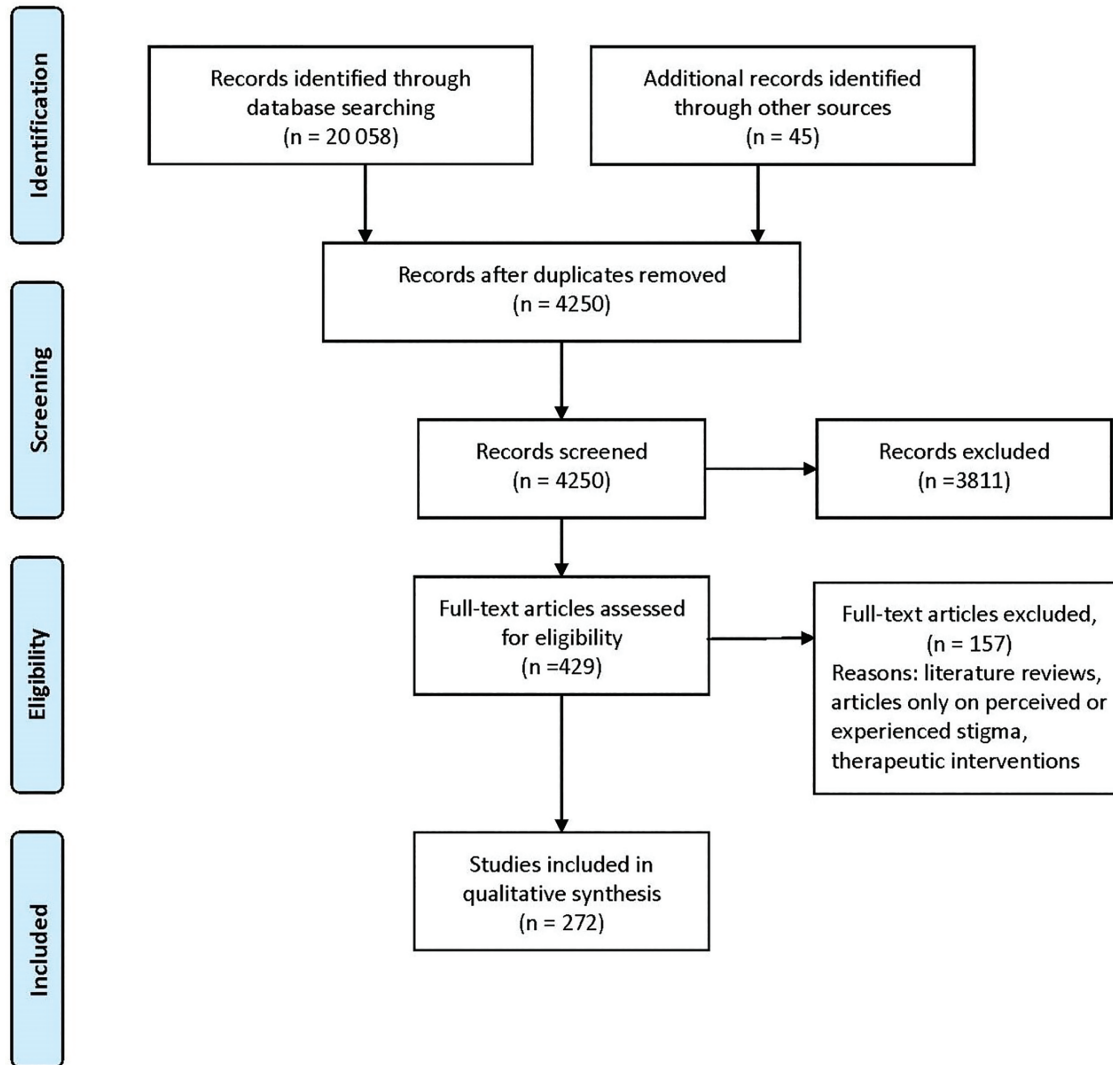
Fig. 1. Review process (Prisma flow diagram)

to high self-stigma, or on both outcomes. Thirty-three studies were conducted in Europe, 20 studies in North America, 17 in South-East Asia, 9 in Africa, 12 in Middle East, 6 in South Asia, 1 in South America, 1 in Australia, and 1 in Austria and Japan. Nine studies compared the frequency of self-stigma in different countries,[9,10,30,33,34] cities,[35] or settings.[13,36,37] The samples were mostly composed of individuals with schizophrenia (31 studies; 43.4%) or SMI (33 studies; 40.5%). The results are shown in table 2. Forty-seven articles reported on the proportion of moderate to high self-stigma (ISMI >2.5 or above the midpoint on other scales) in a total of 15 871 participants (7500 SMI, 5518 schizophrenia, 1582 BD, 1188 MDD, 64 BPD, 19 AD). Eighty-five articles documented self-stigma extent (ISMI mean total score and standard deviation) in 25 458 participants (11 028 with SMI, 9661 with schizophrenia, 2083 with BD, 2154 with MDD, 377 with AD, 155 with BPD).

About one-third of people with SMI (31.3%) reported elevated self-stigma. The highest frequency was found in schizophrenia (35.8%). Higher frequency was found in South-East Asia and the Middle East for SMI, and in North America, Europe, and Africa for schizophrenia. Significant between-group differences in mean self-stigma scores were found between Europe and South Asia or South-East Asia for participants with SMI ($P < 0.001$; weighted mean difference = 0.150 and 0.140), schizophrenia ($P < 0.001$; 0.159 and 0.143), bipolar disorder ($P < 0.001$; 0.253 and 0.35), and MDD ($P < 0.001$; 0.148 and 0.07). Compared with Europe, self-stigma was higher in the Middle East and Africa for SMI ($P < 0.001$; 0.322 and 0.140) and in the Middle East and South America for schizophrenia ($P < 0.001$; 0.401 and 0.08). Box plots on the differences by geographical area are provided on table 3. Self-stigma did not differ between South-East Asia and Africa for SMI, South Asia and South-East Asia for schizophrenia, and North America and the Middle East for bipolar disorder. The results are shown in supplementary table S4. There were significant country-related

Table 1. Research Characteristics of the 272 Studies Included in the Review

Characteristic	All studies (n = 272) %
Publication date	
Pre 2011	28 (10.3%)
2011 or later	244 (89.7%)
Study design	
Cross-sectional	231 (84.9%)
Longitudinal	41 (15.1%)
Region of study	
North America	76 (27.9%)
Europa	95 (34.9%)
South Asia	10 (3.7%)
South East Asia	44 (16.2%)
Middle East	24 (8.8%)
South America	4 (1.5%)
Africa	13 (4.8%)
Australia	4 (1.5%)
Others	2 (0.7%)
Study sites	
Single site	270 (99.3%)
Multiple countries/sites	2 (0.7%)
Diagnosis	
Severe mental illness	115 (42.3%)
Bipolar disorder	14 (5.1%)
Obsessive-compulsive disorder	1 (0.4%)
Major depressive disorder	13 (4.8%)
Anxiety disorder	2 (0.7%)
Schizophrenia	114 (41.9%)
At risk stages/first episode psychosis	13 (4.8%)
Mean age	
<18 years old	3 (1.1%)
18–34 years old	50 (18.4%)
35–50 years old	185 (68%)
>50 years old	13 (4.8%)
Mixed	21 (7.7%)
% articles including people <18	
Yes	24 (8.8%)
No	248 (91.2%)
Internalized stigma measures	
Internalized Stigma of Mental Illness (ISMI)	192 (70.6%)
Self-Stigma of Mental Illness Scale (SSMIS)	33 (12.1%)
Others	47 (17.3%)
Patient status	
Inpatient	28 (10.3%)
Outpatient	211 (77.6%)
Mixed	32 (11.8%)
Not reported	1 (0.3%)
Psychiatric rehabilitation	
Yes	47 (17.3%)
No	225 (82.7%)
Quality rating	
High	157 (57.7%)
Moderate	115 (42.3%)

differences in the proportion of people with SMI who reported high self-stigma in Europe (from 15.2% in Sweden[9] to 57% in Croatia[33]), North America (from 9% in Canada[37] to 37% in USA[38]) and in South-East Asia (from 8.1% in South Korea[39] to 50% in Taiwan[40]). Setting-related differences were also found.[13,35] Similar variations were found for schizophrenia, BD (18.5% Turkey,[41] in remitted BD; 26% USA,[42] in non-adherent BD), MDD, obsessive-compulsive disorder and anxiety disorders.

Cross-sectional Correlates of Self-stigma

Two hundred and forty-one studies (88.6%) reported on cross-sectional internalized stigma correlates. The most common diagnosis was schizophrenia (n = 106; 44%), followed by BD (n = 11; 4.6%) and at-risk states or early psychosis (n = 9; 3.7%). Ninety studies (37.3%) concerned SMI. The results are shown in table 4. See supplementary table 3 for the detailed list of correlates/consequences.

Few sociodemographic characteristics correlated significantly with self-stigma. Immigrant status, history of incarceration or homelessness,[36,43] parenting status (mothers > fathers[44]), shame proneness, and avoidant or self-defeating personality traits (n = 6 studies) were associated with higher self-stigma. The results were contrasted for all other sociodemographic variables (age, gender, education level, employment, marital status, income, and source of income). Other personal characteristics (attachment style, self-compassion) were not associated with self-stigma.[45,46] Residual psychiatric symptomatology, positive and negative symptoms for schizophrenia, and depressive symptoms for BD were associated with higher self-stigma in most studies (84.6% significance; n = 65). Social anxiety (n = 3) and distress from sub-threshold psychotic symptoms[47] were positively correlated with self-stigma. Self-stigma was equally severe in participants with ultra-high risk and established psychosis.[48] Internalized shame about mental illness and fear accuracy in an emotion recognition task were negatively associated in people at risk of psychosis.[49] Stigma stress, identified as a predictor of self-stigma in several studies (n = 4), was positively associated with transition to psychosis.[50] Comorbid post-traumatic stress disorder (n = 2) and an increased number of drug side effects (n = 4) were positively associated with self-stigma.

Public stigma[51] and other dimensions of stigma were associated with self-stigma (perceived stigma, n = 18 studies; perceived stigma from mental health providers,[52] n = 1; experienced stigma, n = 9; anticipated stigma, n = 3). Cultural factors such as attributing mental illness to supernatural causes,[53–55] a history of traditional treatment,[53,55] and loss of face in Eastern countries[35,56] were associated with self-stigma. Concerns about losing face (or the fear of losing face because of being diagnosed with SMI) mediated the relationship between perceived stigma and self-stigma.[56] Stigma stress (n = 4) and negative emotional reactions to involuntary psychiatric admission[57,58] were significant correlates of self-stigma, in contrast with compulsory community treatment,[37] forensic status,[36] and the number of involuntary admissions.[57–59] In-group value (ie, how people with SMI see their own group,[60] social networks and support (n = 11; n = 21), membership of an advocacy group, and family support protected against

Table 2. Frequency of Internalized Stigma

Area	Study	Country	N	Mean IS total score	SD	n	High IS (%)
Europe	SMI						
	Evans-Lacko[51]	Multi-site	1835	2.2	0.5	-	-
	Grambal[169]	Czech Republic	184	2.19	0.5	-	-
	Rusch[58]	Switzerland	186	1.9	0.6	-	-
	Xu[57]	Switzerland	141	1.91	0.61	-	-
	Kamaradova[170]	Czech Republic	332	2.10	0.5	-	-
	Bradstreet[45]	UK	272	2.2	0.49	-	-
	Krajewski[33]	Multi-site	786	2.29 (1.96–2.71)	0.5	786	33% (15.2%–57.4%)
	Dubreucq[93]	France	738	2.20	0.51	738	31.2%
	Oexle[96]	Switzerland	222	2.10	0.55	-	-
	Rusch[107]	Switzerland	116	2.15	0.54	-	-
	Szczesniak[171]	Poland	114	2.23	0.5	-	-
	Weighted total		**4926**	**2.18**	**0.26**	**1524**	**32%**
	Schizophrenia						
	Brohan[9]	Multi-site	1129	2.40 (2.0–2.97)	0.56	1129	41.7%
	Vidovic[126]	Croatia	149	2.13	0.93	149	22.8%
	Sibitz[172]	Austria	157	2.09	0.67	-	-
	Galderisi[173]	Italia	921	2.1	0.5	-	-
	Rossi[174]	Italia	910	2.2	0.44	-	-
	Aukst-Margetic[81]	Croatia	117	2.13	0.44	-	-
	Hofer[30]	Austria	52	2.01	0.51	-	-
	Bouvet[175]	France	62	2.23	0.46	-	-
	Vrbova[176]	Czech Republic	197	2.18	0.46	-	-
	Surmann[177]	Germany	80	2.12	0.47	-	-
	Dubreucq[93]	France	466	2.18	0.51	466	29.8%
	Holubova[178]	Czech Republic	103	2.20	0.47	-	-
	Szczesniak[171]	Poland	51	2.19	0.5	-	-
	Uhlmann[179]	Germany	23	2.0	0.5	-	-
	Vrbova[176]	Czech Republic	197	2.18	0.47	-	-
	Switaj[83]	Poland	110	2.39	0.53	-	-

Table 2. Continued

Area	Study	Country	N	Mean IS total score	SD	n	High IS (%)
Weighted total			**4724**	**2.21**	**0.27**	**1744**	**36.9%**
Bipolar disorders/MDD	Brohan[10]	Multi-site	577	1.94 BD 1.97	0.87	1182	21.7%
			603	2.11 MDD			
Bipolar disorders	Post[180]	Austria	60	1.9 BD	0.57	-	-
	Dubreucq[93]	France	117	2.2	0.53	117	29.9%
	Quenneville[181]	Switzerland	69	2.27	0.5	-	-
	Szczesniak[171]	Poland	19	2.39	0.5	-	-
MDD	Lanfredi[182]	Multi-site	516	2.2	0.5	-	-
	Dubreucq[93]	France	27	2.29	0.56	27	40.7%
	Holubova[178]	Czech Republic	80	1.96	0.42	-	-
	Prasko[95]	Czech Republic	72	2.36	0.49	-	-
	Szczesniak[171]	Poland	42	2.46	0.6	-	-
Weighted total	BD		**842**	**2.01**	**0.60**	**1326**	**22.7%**
	MDD		**1340**	**2.16**	**0.47**		
Anxiety disorders	Ociskova[183]	Czech Republic	109	2.24	0.49	-	-
	Grambal[169]	Czech Republic	37	1.98	0.54		
	Dubreucq[93]	France	19	2.35	0.56	19	42.1%
OCD	Moritz[184]	Germany	50	1.99	0.48	-	-
Weighted total	-		**215**	**2.14**	-	**19**	**42.1%**
BPD	Grambal[169]	Czech Republic	35	2.45	0.50	-	-
	Dubreucq[93]	France	64	2.36	0.47	64	43.8%
	Quenneville[181]	Switzerland	39	2.56	0.66	-	-
Personality disorder	Kamaradova[170]	Czech Republic	17	2.37	0.58	-	-
Weighted total	-		**155**	**2.43**	-	**64**	**43.8%**
North America SMI	Livingston[36]	Canada	91	2.13	0.38	91	10%
	Livingston[37]	Canada	71	2.10	0.35	71	9%
	Livingston[43]	Canada	94	2.22	0.49	94	23.4%
	West[13]	USA	144	1.72	0.57	144	36.1% (31%—41%)
	Ritscher-Boyd[112]	USA	-	-	-	82	28%
	Ritscher-Boyd[185]	USA	149	2.19	0.52	149	24.8%
	Drapalski[186]	USA	100	2.3	0.4	100	35%
	Harris[38]	USA	235	2.31	0.47	235	37%
	Chronister[187]	USA	101	2.2	0.45	101	25%

Table 2. Continued

Area		Study	Country	N	Mean IS total score	SD	n	High IS (%)
		Kira[188]	USA	330	2.16	0.72	330	40.1%
		Tomar[189]	USA	108	2.31	0.5	108	40.7%
		Pearl[105]	USA	319	2.11	0.53	-	-
		Jahn[190]	USA	516	2.25	0.49	-	-
		Villotti[191]	USA	170	1.95	0.47	-	-
	Weighted total	-		**2428**	**2.16**		**1505**	**31.4%**
	Schizophrenia	Firmin[192]	USA	-	-	-	111	36.5% (25%–45%)
		O'Connor[133]	USA	-	-	-	353	50%
		Link[193]	USA	-	-	-	65	26.2%
		Lysaker[101]	USA	70	2.36	0.54	-	-
	Weighted total	-		**70**	2.36	0.29	**529**	**44.2%**
	Bipolar disorders	Howland[42]	USA	115	2.22	0.48	**115**	**26%**
		Bassirnia[194]	USA	112	1.94	0.47	-	-
	Weighted total	-		**227**	**2.08**	0.22	-	-
South America	Schizophrenia	Caqueo-Uritzar[34]	Multi-site	253	2.3	0.54	253	**38.6%** (28.6%–48.7%)
	Weighted total			**253**	**2.3**	0.29	**253**	
Australia	Schizophrenia	Hill[195]	Australia	60	2.56	0.49	-	-
	Weighted total			**60**	**2.56**	0.24	-	
South Asia	SMI	Grover[196]	India	1,403	2.29	0.47	1403	29.4%
		Maharjan[197]	Nepal	-	-	-	180	52%
	Weighted total	-		**1403**	**2.29**	**0.22**	**1583**	**28.6%**
	Schizophrenia	Grover[196]	India	707	2.37	0.51	707	37.9%
		Singh[198]	India	100	2.3	0.40	100	29%
		Pal[199]	India	32	2.74	0.40	-	-
	Weighted total	-		**839**	**2.37**	**0.24**	**807**	**36.8%**
	Bipolar disorders	Grover[196]	India	344	2.23	0.38	344	20.6%
		Pal[199]	India	59	2.25	0.38	-	-
		Grover[200]	India	185	2.33	0.43	185	28%
	Weighted total	-		**588**	**2.26**	**0.15**	**529**	**23.2%**
	MDD	Grover[196]	India	352	2.19	0.45	352	21%
		Sahoo[201]	India	107	2.39	0.57	107	40.1%
	Weighted total	-		**459**	**2.23**	**0.23**	**459**	**25.5%**
	Anxiety disorders	Pal[199]	India	30	1.97	0.37	-	-
South-East Asia	SMI	Picco[202]	Singapore	280	2.37	0.54	280	43.6%
		Ho[97]	China	136	2.3	0.6	136	36.8%
		Young[35]	China	474	2.42 (2.34–2.50)	0.52	474	43.5% (38.3%–49.5%)
		Kim[39]	South Korea	160	2.06	0.36	160	8.1%
		Kao[40]	Taiwan	251	2.26	0.51	251	50%
	Weighted total	-		**1301**	**2.32**	**0.26**	**1301**	**39.7%**
	Schizophrenia	Lv[138]	China	95	2.17	0.38	95	20%
		Hsiao[61]	Taiwan	111	2.33	0.53	111	27%
		Lien[76]	Taiwan	170	2.36	0.52	170	39.4%
		Kao[40]	Taiwan	151	2.42	0.44	151	51%
		Li[139]	China	384	2.30	0.39	-	-
		Hofer[30]	Japan	60	2.16	0.42	-	-
		Ran[127]	China	232	2.46	0.28	-	-

Table 2. Continued

Area	Study	Country	N	Mean IS total score	SD	n	High IS (%)
	Mak[67]	China	162	2.34	0.61	-	-
	Shin[88]	South Korea	70	2.11	0.53	-	-
	Pribadi[203]	Indonesia	300	2.5	0.94	300	34%
	Picco[202]	Singapore	74	2.41	0.52	-	-
	Kim[204]	South Korea	123	2.15	0.50	-	-
	Lu[205]	China	92	2.11	0.45	-	-
	Park[206]	South Korea	321	2.51	0.65	-	-
Weighted total			**2345**	**2.36**	**0.32**	**827**	**32.4%**
Bipolar disorder	Ran[127]	China	39	**2.36**	0.30	-	-
Weighted total				**2.36**	0.09	-	-
MDD	Picco[202]	Singapore	**74**	**2.44**	0.55	**-**	-
	Woon[207]	Malaysia	99	2.0	0.6	99	23.2%
	Ran[127]	China	182	2.43	0.28	-	-
Weighed total			**355**	**2.31**	**0.20**	**99**	**23.2%**
Anxiety Disorders	Picco[202]	Singapore	71	2.23	0.56	-	-
OCD	Picco[202]	Singapore	61	2.41	0.49	-	-
Weighted total			**132**	**2.31**			
Middle East SMI	Ghanean[208]	Iran	-	-	-	**138**	**39%**
	Tanriverdi[209]	Turkey	**217**	2.59	0.33	-	-
	Hasson-Ohayon[210]	Israel	**107**	2.28	0.49	-	-
	Korkmaz[211]	Turkey	**224**	2.53	0.48	-	-
Weighted total			**548**	2.50	0.18	**138**	**39%**
Schizophrenia	Sarisoy[41]	Turkey	109	2.17	0.51	109	29.4%
	Capar[212]	Turkey	250	2.76	0.37	-	-
	Olçun[213]	Turkey	76	2.51	0.55	-	-
	Yilmaz[214]	Turkey	63	2.63	0.49	-	-
	Yildirim[94]	Turkey	200	2.74	0.46	-	-
	Tanriverdi[209]	Turkey	46	2.54	0.25	-	-
Weighted total			**744**	**2.61**	**0.32**	**109**	**29.4%**
Bipolar disorders	Sarisoy[41]	Turkey	118	2.10	0.46	118	18.5%
	Cerit[215]	Turkey	80	2.12	0.39	-	-
	Sadighi[216]	Iran	126	1.90	0.87	126	27.6%
	Tanriverdi[209]	Turkey	63	2.52	0.32	-	-
Weighted total			**387**	**2.10**	**0.35**	**244**	**19.2%**
Africa SMI	Adewuya[217]	Nigeria	-	-	-	340	21.6%
	Girma[53]	Ethiopia	422	2.32	0.30	422	25.1%
	Ibrahim[55]	Nigeria	-	-	-	370	22.5%
	Asrat[218]	Ethiopia	-	-	-	317	32.1%
Weighted total			**422**	2.32	0.09	**1449**	**25.1%**
Schizophrenia	Mosanya[125]	Nigeria	256	1.94	0.68	256	18.8%
	Fadipe[219]	Nigeria	370	2.09	0.43	370	16.5%
	Assefa[220]	Ethiopia	-	-	-	212	46.7%
	Bifftu[124]	Ethiopia	-	-	-	411	48.6%
Weighted total			**626**	2.03	0.29	**1249**	**32.6%**

Note: MDD, Major Depressive Disorder; OCD, Obsessive Compulsive Disorder; BPD, Borderline Personality Disorder; SMI, Severe Mental Illness. Mean Internalized Stigma refers to ISMI mean total score. High Internalized Stigma refers to the proportion of patients with ISMI > 2.5 or above the midpoint on other scales. Bold faces represents the total sample and the weighted means and proportions.

Table 3. Between-groups Differences by Geographical Area

Serious Mental Illness
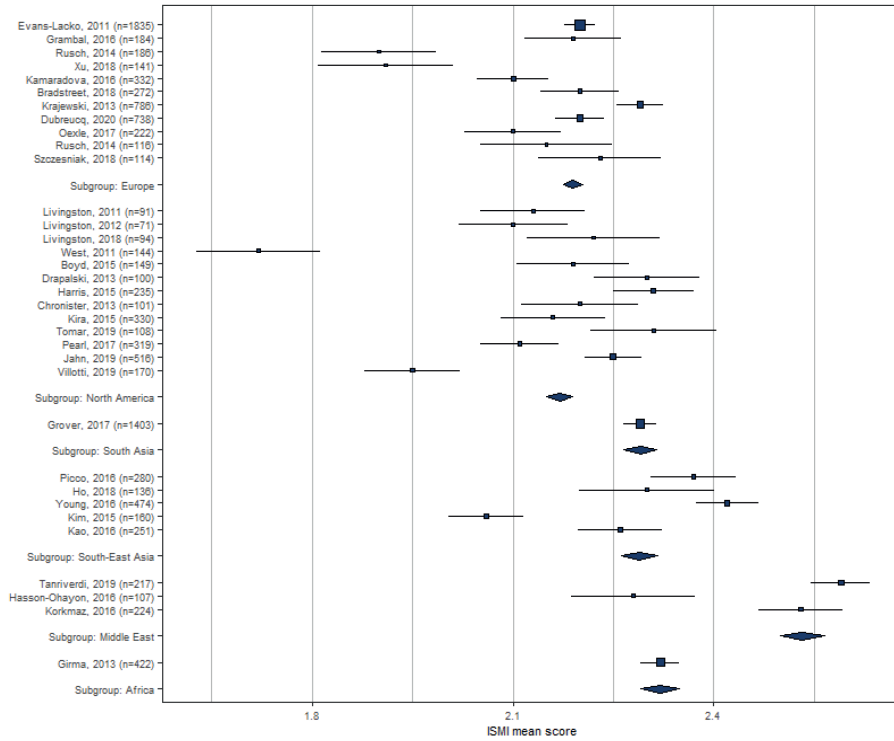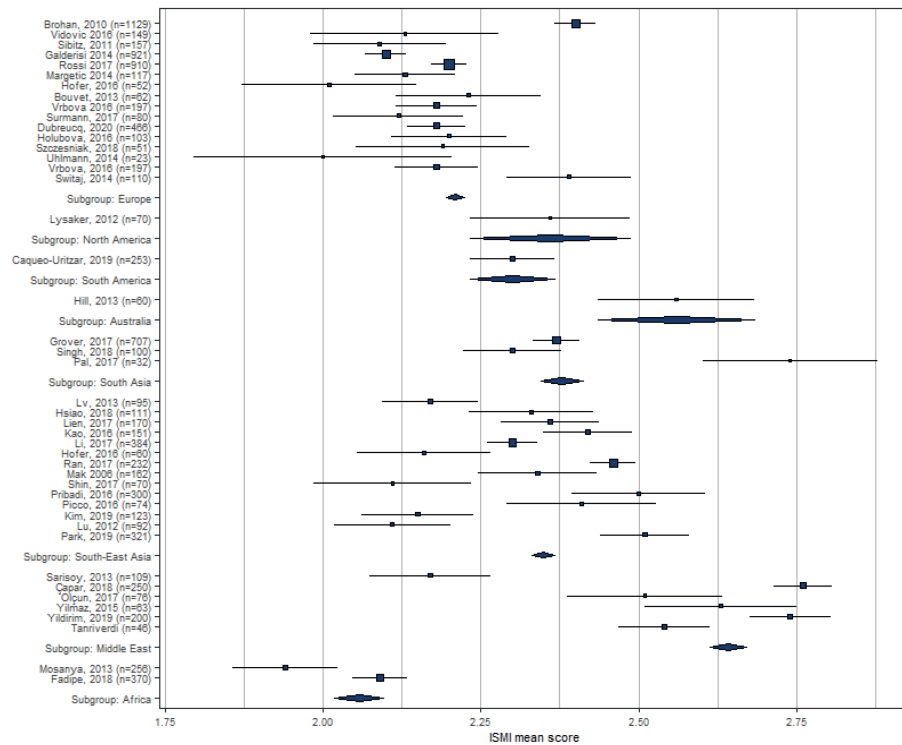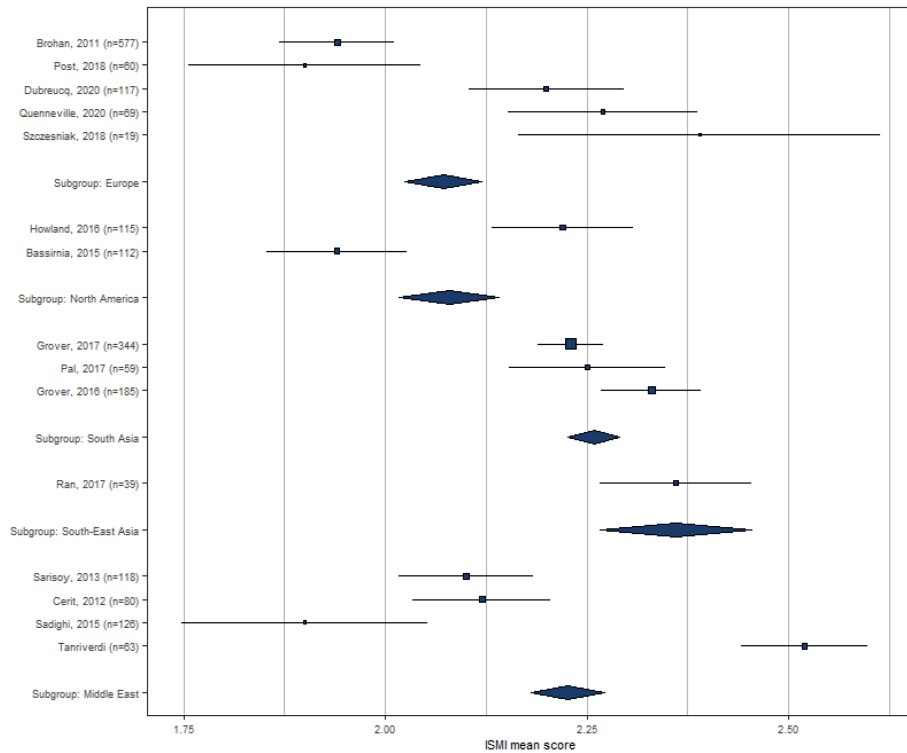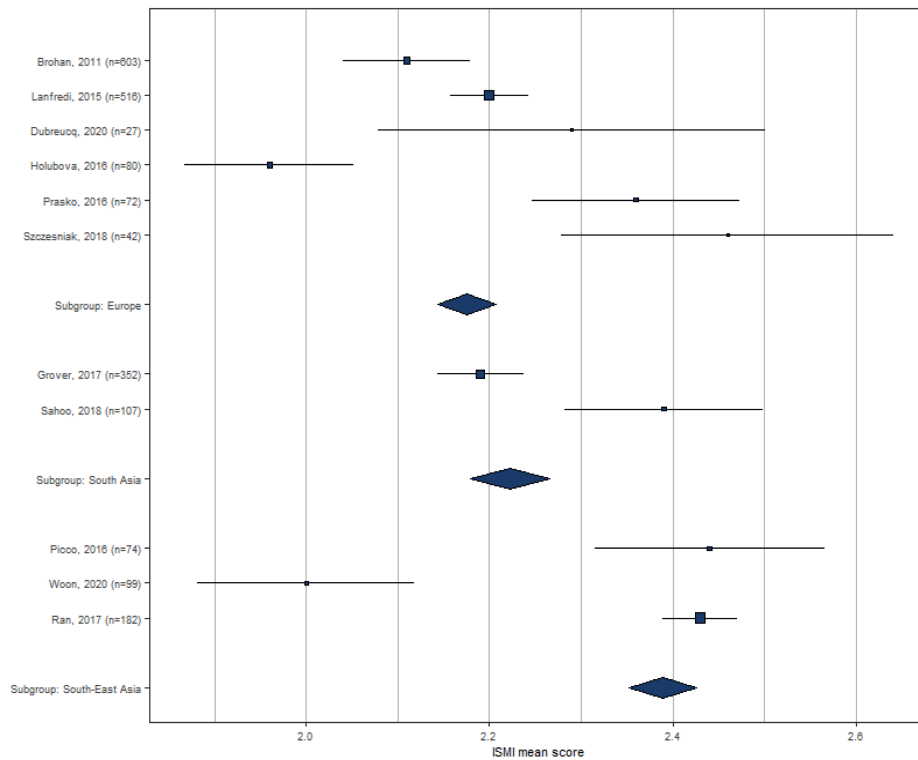

Schizophrenia

Table 3. Continued

Bipolar Disorder

Major depressive disorder

Means and percentages were weighted for the number of cases per study to obtain prevalence data. Derived weighted means by geographical area and pooled standard deviations were calculated. One-way ANOVA was conducted from these summary data and Post hoc pairwise test comparisons were computed with Tukey–Kramer method. Plots shows the ISMI mean score for each studies and each area with 95% confidence interval.

self-stigma.[61,62] Family expressed emotion and associative stigma in mental health professionals were associated with higher self-stigma.[63,64] Self-stigma mediated the effects of family expressed emotion and in-group value on psychosocial function and personal recovery.[64,65]

Insight into illness (n = 32 studies), parental insight,[66] self-perception of clinical severity (n = 3), perceived cognitive dysfunction (n = 4), and attributions of personal responsibility[67] were associated with higher self-stigma. Impairments in cognitive and metacognitive function (n = 5; n = 7), dysfunctional attitudes[68] and avoidant coping strategies (n = 8) were associated with higher self-stigma. Conversely preserved cognitive abilities,[69–71] empowerment, self-efficacy, self-agency, and stigma resistance protected against self-stigma.[9,10,62,72] Mixed results were found for other illness-related correlates (age of onset, psychiatric diagnosis, illness duration, history of suicide attempts, inpatient status, past psychiatric admission, and number of hospitalizations).

In general, self-stigma was positively associated with depressive symptoms (n = 41) and suicidal ideation (n = 14) and negatively correlated with hope (n = 19), help seeking (n = 5), and treatment adherence (n = 15). Single studies found negative associations with therapeutic alliance[73] and shared decision making.[74] Insight into illness,[70,75–80] avoidant personality traits,[81] and coping strategies,[82] loneliness,[83] and resilience[84] moderated the relationship with depression and self-esteem mediated the effects of self-stigma on hope.[85] Self-stigma mediated the effects of perceived cognitive dysfunction and experienced stigma on suicidality[86,87] and QoL.[88] Self-stigma was negatively associated with QoL (n = 41), self-esteem (n = 44), self-efficacy (n = 13), well-being (n = 9), life satisfaction (n = 8), empowerment (n = 11), resilience (n = 7), stigma resistance (n = 11), and personal recovery (n = 22). Self-stigma positively correlated with the "why try effect"[89] and later stages of self-stigma with a higher impact on hope, self-esteem, psychosocial function, and personal recovery.[89,90] Participants in the late stages of self-stigma reported more reasons for not disclosing their psychiatric diagnosis, in contrast with those in the early stages who reported greater benefits from being "out".[91]

Self-stigma was negatively associated with global functioning (n = 27). Higher demoralization and decreased resilience mediated the relationship between self-stigma and psychosocial function.[75,92] Self-stigma was negatively associated with relational satisfaction.[41,93] Self-stigma positively correlated with sense of loneliness,[83,94] fear of intimate relationships,[41] and self-stigma on parenting abilities for mothers living without their children.[44]

Self-stigma and Longitudinal Outcomes

Forty-one studies reported longitudinal outcomes associated with internalized stigma. These studies mainly included participants with SMI (n = 15; 36.6%), schizophrenia (n = 16; 39%) or at-risk stages/early psychosis (n = 5; 12.2%). Twelve studies included young participants (<18, n = 1; 18–35, n = 11) and three individuals over 50 years old (10.7%). Fifteen were conducted in psychiatric rehabilitation settings (36.5%). The duration of follow-up ranged from 6 weeks[95] to 2 years.[96] The results are shown in table 5.

Fifteen studies reported on the baseline factors influencing the level of self-stigma at follow-up. Residual psychiatric symptoms,[97–100] negative emotional reactions to involuntary hospitalization,[57,99] and emotional distress[98,101] were the most significant baseline factors associated with self-stigma at follow-up. Duration of untreated psychosis[97] and baseline coping strategies[102] were associated with higher self-stigma in single studies. Mixed results were found for self-stigma stability over time with no specific intervention.[86,102–104] Attending psychiatric rehabilitation was associated with significant reductions in self-stigma extent (from a mean total ISMI score of 2.31 on admission to 1.96 at discharge;[38] 2.36–2.20;[101] 2.11–1.96;[105] 2.1–2.04;[106] 1.80–1.50 in participants having worked in the past year without being discriminated against[107]) and in the proportion of participants with high self-stigma (ISMI > 2.5 from 37% to 13.7%;[38] reduction in ISMI levels at follow up > 25% in 38% of the participants with mean self-stigma > 2[103]). Not receiving disability benefits during psychiatric rehabilitation was associated with a greater reduction in self-stigma.[38] Attending consumer-operated service programs was associated with self-stigma reduction.[108]

Twenty-eight studies reported on the longitudinal consequences of self-stigma. Self-stigma at baseline was associated with increased positive symptoms,[109] emotional discomfort,[100] social anxiety,[110] depression,[111,112] suicidal ideation,[96,113] and an increased risk of psychiatric hospitalization[114] at follow-up. Participants with high self-stigma reported reduced self-esteem,[112] decreased life satisfaction,[115] lower personal recovery,[116] less use of adaptive coping strategies,[102] and lower treatment adherence[117] at follow-up. Baseline self-stigma was associated with poorer social and vocational functioning[109,118] at follow-up, and less benefits from vocational rehabilitation.[119] A change in self-stigma during follow-up predicted depression. Increases in self-stigma were associated with more depressive symptoms[109] and higher suicidality.[99,120] Decreases in self-stigma were associated with less depression.[104,105] Increased self-stigma was associated with more negative attitudes towards psychiatric medication,[120,121] poorer social function,[122] reduced self-esteem,[99] and lower personal recovery.[116] Reduced self-stigma was associated with decreased subjective clinical severity,[105] higher self-esteem,[101] and improved global functioning.[105] Baseline self-stigma was not associated with QoL at follow-up.[37] Decreased self-stigma during follow-up was,

Table 4. Cross-sectional Correlates and Consequences of Self-stigma

Variables	A Number of studies (n = 272)		B Non-significant relationship (P > 0.05)		C Significant relationship (P < 0.05)		D Positive relationship (P < 0.05)		E Negative relationship (P < 0.05)	
	n	%	n	%	n	%	n	%	n	%
Sociodemographic										
Gender (1)	62	22.8	50	80.7	12	19.3	3	25.0	9	75.0
Age	68	25.0	49	72.1	19	27.9	12	63.2	7	36.8
Education	60	22.1	37	61.7	23	38.3	10	43	13	57
Employment(2)	37	13.6	16	43.2	21	56.8	2	9.5	19	90.5
Marital status(3)	40	14.7	28	70	12	30	3	25.0	9	75.0
Income	16	5.9	5	31.2	11	68.8	0	0	11	100
Source of income (4)	11	4.0	6	54.5	5	45.5	3	60	2	40
Immigrant status	1	0.4	0	0	1	100	1	100	0	0
History of incarceration/homelessness	2	0.7	0	0	2	100	2	100	0	0
Experience of victimization	2	0.7	0	0	2	100	2	100	0	0
Parenting status (5)	2	0.7	1	50	1	50	1	100	0	0
Internalizing personality traits	6	2.2	0	0	6	100	6	100	0	0
Self-compassion/mindfulness	2	0.7	1	50	1	50	0	0	1	100
Locality (urban/rural) (6)	7	2.6	4	57.1	3	42.9	1	33.3	2	66.7
Illness-related										
Severity of psychiatric symptoms	65	23	10	15.4	55	84.6	55	100	0	0
Higher distress from sub-threshold psychotic symptoms/psychiatric symptoms	2	0.7	0	0	2	100	2	100	0	0
Age of onset	26	9.6	19	73.0	7	27.0	0	0	7	100
Illness duration	32	11.8	22	68.7	10	31.3	7	70.0	3	30.0
Stage of illness	1	0.4	1	100	0	0	-	-	-	-
Diagnosis(7)	38	14.0	20	52.6	18	47.4	NA	-	NA	-
Insight	32	11.8	0	0	32	100	32	100	0	0
Parental insight	1	0.4	0	0	1	100	1	100	0	0
Subjective clinical severity	3	1.1	0	0	3	100	3	100	0	0
Perceived cognitive dysfunction	4	1.5	0	0	4	100	4	100	0	0
Hospitalizations	38	14.0	23	60.5	15	39.5	14	93.3	1	6.7
Treatment setting (8)	6	2.2	3	50	3	50	1	33.3	2	66.7
Involuntary hospitalizations (IH)	3	1.1	1	33.3	2	66.7	2	100	0	0
Negative emotional reactions to IH	2	0.7	0	0	2	100	2	100	0	0
Forensic patient status	3	1.1	2	66.7	1	33.3	1	100	-	-
Compulsory community treatment	1	0.4	1	100	0	0	-	-	0	0
History of suicide attempt	6	2.2	1	16.7	5	83.3	5	100	0	0
Social anxiety	3	1.1	0	0	3	100	3	100	0	0
Comorbid post-traumatic stress disorder	2	0.7	0	0	2	100	2	100	0	0
Comorbid personality disorder	2	0.7	0	0	2	100	2	100	0	0
Cormorbid substance use disorder	3	1.1	1	33.3	2	66.7	2	100	0	0
Drug extra-pyramidal side-effects	4	1.5	0	0	4	100	4	100	0	0
Cognitive functioning	6	2.2	1	16.7	5	83.3	0	0	5	100
Social cognition	4	1.5	1	25	3	75	0	0	3	100

Table 4. Continued

Variables	A Number of studies (n = 272)		B Non-significant relationship (P > 0.05)		C Significant relationship (P < 0.05)		D Positive relationship (P < 0.05)		E Negative relationship (P < 0.05)	
	n	%	n	%	n	%	n	%	n	%
Metacognitive abilities	7	2.6	0	0	7	100	0	0	7	100
Dysfunctional attitudes	1	0.4	0	0	1	100	1	100	0	0
Use of negative coping strategies	8	2.9	0	0	8	100	8	100	0	0
Environment-related										
Country level of public stigma	6	2.2	0	0	6	100	6	100	0	0
Perceived stigma	18	6.6	0	0	18	100	18	100	0	0
Self-labelling	3	1.1	0	0	3	100	3	100	0	0
Stigma stress	4	1.5	0	0	4	100	4	100	0	0
Group value	3	1.1	0	0	3	100	0	0	3	100
Perceived legitimacy	2	0.7	0	0	2	100	2	100	0	0
Social network	11	4.0	0	0	11	100	0	0	11	100
Sense of belonging	2	0.7	0	0	2	100	0	0	2	100
Perceived social support	21	8.4	0	0	21	100	0	0	21	100
Loneliness	2	0.7	0	0	2	100	2	100	0	0
Family sense of coherence	1	0.4	0	0	1	100	0	0	1	100
Experienced and anticipated stigma	13	4.8	0	0	13	100	13	100	0	0
Expressed emotion in families	1	0.4	0	0	1	100	1	100	0	0
Associative stigma in MHP	1	0.4	0	0	1	100	1	100	0	0
Cultural factors										
Attributing mental illness to supernatural causes	3	1.1	0	0	3	100	3	100	0	0
History of traditional treatment	2	0.7	0	0	2	100	2	100	0	0
Loss of face in Eastern countries	2	0.7	0	0	2	100	2	100	0	0
Psychosocial										
Self-efficacy	13	4.8	0	0	13	100	0	0	13	100
Empowerment	11	4.0	0	0	11	100	0	0	11	100
Self-esteem	44	16.2	0	0	44	100	0	0	44	100
Hope	19	7.0	0	0	19	100	0	0	19	100
Depression	41	15.1	0	0	41	100	41	100	0	0
Suicide risk	15	5.5	1	6.7	14	93.3	14	100	0	0
Help-seeking/Therapeutic alliance	5	1.8	0	0	5	100	0	0	5	100
Treatment adherence	15	5.5	0	0	15	100	0	0	15	100
Subjective social status	1	0.4	0	0	1	100	0	0	1	100
Psychosocial function	27	9.9	0	0	27	100	0	0	27	100
Activity	1	0.4	0	0	1	100	0	0	1	100
Self-reported physical health	2	0.7	0	0	2	100	0	0	2	100
Capacity for intimacy/satisfaction in intimate relationships	4	1.5	0	0	4	100	0	0	4	100
Self-reported parenting experiences	1	0.4	0	0	1	0	0	0	1	100
Quality of life	41	15.1	0	0	41	100	0	0	41	100
Wellbeing	9	3.3	0	0	9	100	0	0	9	100
Satisfaction with life	8	2.9	0	0	8	100	0	0	8	100

Table 4. Continued

Variables	A Number of studies (n = 272)		B Non-significant relationship (P > 0.05)		C Significant relationship (P < 0.05)		D Positive relationship (P < 0.05)		E Negative relationship (P < 0.05)	
	n	%	n	%	n	%	n	%	n	%
"why try effect"	2	0.7	0	0	2	100	2	100	0	0
Coming out (CO)/CO assertiveness	1	0.4	1	100	0	0	-	-	-	-
Benefits from being out	1	0.4	0	0	1	100	0	0	1	100
Stigma resistance	11	4.0	0	0	11	100	0	0	11	100
Resilience	7	2.6	0	0	7	100	0	0	7	100
Personal recovery	22	8.1	0	0	22	100	0	0	22	100

1) Columns D + E; 1 = Men.
2) Columns D + E; 1 = Employed.
3) Columns D + E; 1 = Married.
4) Columns D + E; 1 = Income earner.
5) Columns D + E; 1 = Mothers.
6) Columns D + E; 1 = Urban.
7) Columns D+ E; not applicable (heterogeneity of the samples).
8) Columns D + E; 1= Inpatients.
Table 4 presents the relationships between sociodemographic, illness-related, environment-related, cultural and psychosocial variables with self-stigma (includes 272 studies).

Table 5. Longitudinal Correlates and Consequences of Self-stigma

Variables	A. Number of studies (n = 41)		B. Non-significant relationship (P > 0.05)		C. Significant relationship (P < 0.05)		D. Positive relationship (P < 0.05)		E. Negative relationship (P < 0.05)	
	n	%	n	%	n	%	n	%	n	%
Correlates of increased self-stigma at follow-up										
Female sex	5	12.2	4	80	1	20	1	100	0	0
Hospitalizations	1	2.4	0	0	1	100	1	100	0	0
Duration of untreated psychosis	1	2.4	0	0	1	100	1	100	0	0
Baseline psychiatric symptoms	5	12.2	0	0	5	100	5	100	0	0
Shame, self-contempt about IH and stigma stress	2	4.9	0	0	2	100	2	100	0	0
Negative coping strategies	1	2.4	0	0	1	100	1	100	0	0
Correlates of reduced self-stigma at follow-up										
Attending to recovery-oriented daycare/vocational rehabilitation/COSP	5	12.2	0	0	5	100	5	100	0	0
Work without experienced discrimination	1	2.4	0	0	1	100	1	100	0	0
Receiving no disability benefits during PR	1	2.4	0	0	1	100	1	100	0	0
Longitudinal consequences of self-stigma										
Psychiatric symptoms	5	12.2	0	0	5	100	5	100	0	0
Social anxiety	1	2.4	0	0	1	100	1	100	0	0
Depression	6	14.6	0	0	6	100	6	100	0	0
Suicide risk	4	9.8	0	0	4	100	4	100	0	0
Risk of hospitalizations	1	2.4	0	0	1	100	1	100	0	0
Self-esteem	3	7.3	0	0	3	100	0	0	3	100
Treatment adherence	3	7.3	0	0	3	100	0	0	3	100
Psychosocial function	9	21.9	0	0	9	100	0	0	9	100
Quality of Life	3	7.3	0	0	3	100	0	0	3	100
Life satisfaction	1	2.4	0	0	1	100	0	0	1	100
Personal recovery	2	4.9	0	0	2	100	0	0	2	100

Note: COSP, consumer-operated service program; IH, involuntary hospitalization; PR, Psychiatric rehabilitation.
Table 5 presents the longitudinal relationships between sociodemographic, illness-related, environment-related, and psychosocial variables with self-stigma (includes 41 studies).

Table 6. Prevalence of Stigma Resistance

Area	Study	Country	n	Mean SR	SD	n	High SR (%)
Europe							
SMI	Grambal[169]	Czech Republic	184	2.52	0.57	-	-
	Dubreucq[93]	France	738	2.54	0.51	693	54.1
Weighted total			**922**	**2.53**			
Schizophrenia	Brohan[9]	Multi-site	1129	2.47 (2.29–2.7)	0.51	1129	49.2%
	Vidovic[126]	Croatia	149	2.37	0.99	149	54%
	Sibitz[123]	Austria	157	2.73	0.76	157	63.3%
	Hofer[30]	Austria	52	2.94	0.53	-	-
	Bouvet[175]	France	62	2.46	0.55	-	-
	Vrbova[176]	Czech Republic	197	2.56	0.48	-	-
	Surmann[177]	Germany	80	2.35	0.58	-	-
	Dubreucq[93]	France	466	2.56	0.51	466	55.4%
Weighted total	-		**2292**	**2.51**		**1435**	**51.2%**
Bipolar Disorders/MDD	Brohan[10]	Multi-site	1182	2.81	0.98	1182	59.7%
	Dubreucq[93]	France	117 BD	2.52	0.53	117	52.1%
			27 MDD	2.58	0.53	27	59.3%
Weighted total			**1326**	2.77		**1326**	**59.02%**
Anxiety disorders	Grambal[169]	Czech Republic	37	2.30	0.56	-	-
	Dubreucq[93]	France	19	2.44	0.68	19	36.8%
Borderline Personality Disorder	Grambal[169]	Czech Republic	35	2.27	0.57	-	-
	Dubreucq[93]	France	64	2.52	0.48	64	51.6%
North America							
SMI	Livingston[37]	Canada	71	2.07	0.38	-	-
	Livingston[43]	Canada	94	2.10	0.50	94	15.9%
	Ritsher-Boyd[112]	USA		-		82	29%
Weighted total			**165**	**2.08**		**176**	**22%**
South America							
Bipolar Disorders	Howland[42]	USA	**115**	**3.06**	0.46	-	-
South Asia							
Schizophrenia	Caqueo-Uritzar[34]	Multi-site	**253**	**2.4**	0.61	-	-
Schizophrenia	Singh[198]	India	100	2.3	0.70	100	45%
	Pal[199]	India	32	2.84	0.50	-	-
Weighted total			**132**	**2.43**		**100**	**45%**
Bipolar Disorders	Pal[199]	India	59	2.43	0.42	-	-
	Grover[200]	India	185	2.21	0.51	-	-
Weighted total	-		**244**	**2.26**			-
South-East Asia							
SMI	Ran[127]	China	453	2.49	0.42	-	-
	Lau[221]	Singapore	280	2.87	0.47	**280**	**82.9%**
Weighted total			**733**	**2.63**			
Schizophrenia	Li[139]	China	384	2.28	0.45	-	-
	Hofer[30]	Japan	60	2.35	0.46	-	-
	Ran[127]	China	232	2.50	0.36	-	-
Weighted total			**676**	**2.36**			
Middle East							
SMI	Ghanean[208]	Iran	**138**	**2.46**	0.39	-	-
Schizophrenia	Sarisoy[41]	Turkey	109	2.56	0.62	-	-
	Capar[212]	Turkey	250	2.41	0.35	-	-
	Olçun[213]	Turkey	76	2.60	0.60	-	-
	Karakas[222]	Turkey	60	2.62	0.63	-	-
	Yilmaz[214]	Turkey	63	2.66	0.43	-	-
Weighted total score	-		**558**	**2.51**			-
Bipolar Disorders	Sarisoy[41]	Turkey	118	2.38	0.54	-	-
	Sadighi[216]	Iran	126	2.76	0.98	**126**	**57.49%**

Table 6. Continued

Area	Study	Country	n	Mean SR	SD	n	High SR (%)
Africa							
Weighted total score							
SMI	Girma[53]	Ethiopia	**246**	2.55	0.40	-	-
	Sorsdahl[62]	South Africa	422	2.41	-	-	-
	-	-	142	2.90	-	-	-
Weighted total			**564**	2.53	-	-	-
Schizophrenia	Mosanya[125]	Nigeria	256	2.79	0.53	256	72.7%
	Bifftu[124]	Ethiopia	411	2.52	-	411	49.4%
Weighted total			**667**	**2.62**	-	**667**	**58.34%**

Note: MDD, Major Depressive Disorder; SMI, Severe Mental Illness. Mean stigma resistance refers to ISMI stigma resistance subscale mean score. High stigma resistance refers to the proportion of patients with ISMI stigma resistance subscale > 2.5. Bold faces represents the total sample and the weighted means and proportions.

however, associated with improvements in QoL[105] during psychiatric rehabilitation.

Self-stigma and Stigma Resistance

Thirty-one studies (11.9%) reported data on stigma resistance frequency in SMI. The results are shown in table 6. Stigma resistance was higher in mood disorders (59.7%[10]) than in schizophrenia (53.1%; *n* = 5). Stigma resistance in schizophrenia varied within Europe (from 49.2%[9] to 63%[123]) and Africa (from 49.4% in Ethiopia[124] to 72.7% in Nigeria[125]). Stigma resistance was negatively correlated with self-stigma in Austria,[30,123] Croatia,[126] Nigeria,[125] and South Africa.[62] In some countries, self-stigma and stigma resistance were both high (USA,[42] Turkey, Ethiopia,[124] India, Bolivia,[34] Peru,[34] Chile,[34] and China[127]) and in Canada these were both low.[36,37] Metacognitive abilities,[128–130] social network,[123,131] social power,[132] self-compassion,[131] psychological flexibility,[131] fear of negative evaluation,[128] perceived stigma,[60,114] negative symptoms,[130] and coping strategies[129,133] were associated with high stigma resistance.

Discussion

Research on self-stigma in SMI has considerably progressed over the past decade (244 articles since 2010 and 28 studies published prior to this).[7] Self-stigma was present in all geographical areas with higher frequency in South-East Asia and the Middle East for SMI (>39%). Self-stigma in SMI was higher in the Middle East, South Asia, South-East Asia, and Africa than in Europe or North America. Schizophrenia was associated with high self-stigma in all geographical areas (32.6%–44.2%). Self-stigma in schizophrenia was higher in the Middle East, South-East Asia, South Asia, and South America than in Europe. Self-stigma differed according to the geographical area in mood disorders (higher self-stigma in South Asia and South-East Asia in comparison with Europe, North America, or the Middle East). Variations in patterns of stigma according to the cultural area might explain these differences. The greater public stigma relating to SMI in Eastern countries compared with Western countries could explain the higher levels of self-stigma in South Asia and South-East Asia.[134] Other potential factors contributing to higher self-stigma include feelings of shame about not meeting the social expectations of "what matters most" in one's social group,[14,16] moral or supernatural causal attributions of mental illness, and social concerns about the spillover effects disclosing mental illness might have on the social and economic status of family members.[53,55,134] The frequency of self-stigma is consistently high across the world. This concurs with several cross-national studies on perceived, experienced, or anticipated stigma.[3,135–137] Lower rates of experienced

stigma, but similar levels of self-stigma for people with schizophrenia were reported in China and India compared with Western countries.[16,138,139] Cultural factors (eg, concerns about disclosure spillover on family members) leading to higher self-stigma and social withdrawal might explain these variations.[14,16,138,139] Most of the instruments used for assessing self-stigma in non-Western countries were adapted from scales developed in Europe or North America and did not include culture-specific items. These scales might not reflect all the culture-specific forms of stigma.[55,140] Anti-stigma campaigns and self-stigma reduction interventions should take into consideration cultural factors (eg, cost/benefits of strategic disclosure in a given cultural context[35,54,141]).

Cultural and socio-ideological factors might account for the large country-related variations that were found within geographical areas. Higher public stigma was found in Eastern/Southern Europe compared with Western Europe.[142–144] Compared with Western Europe or Canada, higher levels of self-reported sociopolitical conservatism were found in Eastern Europe and the USA.[145,146] Gonzales[147] and De Luca[148] found that self-reported political conservatism and right-wing authoritarianism were associated with increased public stigma. Cultural factors (eg, the endorsement of traditional cultural values, higher in China than in Taiwan or South Korea[149]) might contribute to the differences observed between Guangzhou and Hong Kong[35] or between Taiwan and South Korea.[39,40] These variations could be related to sample characteristics (eg, higher reliance on family support in Guangzhou compared with Hong Kong;[35] higher proportion of patients with BD in Korea than in Taiwan[39,40]).

Sociodemographic and illness-related correlates yielded mixed results in line with previous reviews.[7,8] Self-stigma was high in BPD but this is based on a small number of studies with small sample sizes. Self-stigma was equally severe in the at-risk stages as in psychosis.[111] Further research is needed to confirm this result. Self-stigma was closely associated with perceived and experienced stigma. These concepts are distinct and should be better differentiated between, as stereotype awareness and self-labeling do not necessarily imply stereotype agreement, self-application, and increased self-stigma.[91,150] Self-support groups and recovery-oriented services promoting positive group identification[60,106] should be further developed to prevent or reduce self-stigma. Reducing self-stigma implies targeting the explicitly negative views about the self that relate to being diagnosed with SMI. Making an empowered decision about disclosing an SMI diagnosis might be effective for adolescents or people in the early stages of self-stigma.[91,151] People in the late stages of self-stigma may need to take part in group interventions combining psychoeducation and cognitive restructuring.[21,57] Interventions should be proposed to each individual according to his/her personal needs and level of self-stigma.

The association between self-stigma with treatment setting varies (50% significance). Two studies reported higher self-stigma in outpatients compared with inpatients[152,153] and one the opposite.[83] Loneliness, low social support, perceived stigma, experienced stigma, and anticipated stigma might contribute to higher self-stigma in outpatients.[152,153] Participating in community activities, good social support, and attending psychiatric rehabilitation services or consumer-operated service programs protect against self-stigma.[9,62,105,108] Stigma stress, negative emotional reactions to involuntary hospitalization, and the use of avoidant coping strategies after discharge contribute to higher self-stigma.[57,58,102] Improved inpatient care (ie, the implementation of recovery-oriented practices and interventions targeting stigma stress, therapeutic alliance and coping strategies) might result in better patient outcomes after discharge, although this remains to be investigated.

The development of recovery-oriented practices in mental health facilities should be encouraged as it could reduce perceived stigma, stigma stress,[57–59] and negative emotional reactions to involuntary admissions.[57–59] Peer-supported self-management interventions, Joint Crisis Plans, "No Force First" policies, and selective disclosure programs could improve self-stigma through reduced stigma stress and perceived coercion.[151,154–156] Recovery-oriented training programs for mental health professionals improve personal recovery in people with SMI.[157] They may also improve mental health professionals' job satisfaction, burnout, and associative stigma of mental illness.[15,63] Their effectiveness in reducing self-stigma in patients should be investigated.

Given the potential relationships with stigma stress,[50] duration of untreated psychosis,[97] distress from sub-threshold psychotic symptoms,[47] and transition to psychosis,[50] the effects of recovery-oriented early interventions on self-stigma and its consequences should be further investigated. Strategic disclosure programs result in people making empowered decisions about whether to disclose a diagnosis of SMI or not. They result in improved stigma stress and self-stigma in adolescents with SMI[151] and should be integrated into recovery-oriented early intervention services.

As expected,[7,8] self-stigma was negatively associated with recovery-related outcomes and positively associated with depression and suicidal ideation. Cognitive impairments, dysfunctional attitudes, and avoidant coping strategies were positively associated with self-stigma. Insight into illness was the most significant moderator of internalized stigma. Perceived cognitive dysfunction, perceived and experienced stigma all had indirect effects on clinical and functional outcomes via self-stigma. Baseline self-stigma was associated with poorer recovery-related outcomes and less benefit from vocational rehabilitation at follow-up.[8,119] Reduction in self-stigma was associated with improved depression, suicidality, attitudes towards

medication, self-esteem, QoL, and social function at follow-up.

Improved treatment (ie, recovery-oriented practices and nonspecific interventions targeting therapeutic alliance, dysfunctional attitudes, self-esteem, or coping strategies) could indirectly reduce self-stigma.[158–160] Recovery-oriented psychoeducation improves treatment adherence and reduces the risk of hospitalization.[161] Improved therapeutic alliance is associated with better recovery-related outcomes after attending to early interventions services.[158] Other interventions such as cognitive behavioral therapy, cognitive remediation, or social skills training might reduce self-stigma through improved symptoms, dysfunctional attitudes, and functioning.[22,159,160,162] Given the potential relationship between expressed emotion in the families of people with SMI and self-stigma and recovery-related outcomes,[64,65] family psychoeducation could be effective for self-stigma.[163] Family psychoeducation should be recovery-oriented and address both public stigma and self-stigma.[164–167] The relationship between self-stigma in people with SMI and in their relatives is still unclear and should be further investigated.[168]

Stigma resistance and self-stigma were negatively associated with each other[6] but with different patterns. Self-stigma and stigma resistance are distinct constructs and should be measured using more specific scales.[6]

Limitations

There are some limitations to this review due to the heterogeneity in the definition of SMI and in the samples, settings, methods, scales, and reported outcomes. Few articles reported longitudinal outcomes with a limited number of studies conducted in psychiatric rehabilitation settings. This review excluded studies where self-stigma was not the main focus, which means that stigma in all its forms (ie, perceived, experienced or anticipated stigma, and self-stigma) could actually have more wide-ranging effects on people with SMI. However, by focusing on self-stigma, this review provides a more accurate understanding of its effects on people with SMI. The heterogeneity of the samples, methods, scales, and reported outcomes in the included articles limited the possibilities for extracting comparable data. The large number of studies included in this review and the range of countries represented is however a considerable strength. The under-reporting of negative or nonsignificant results due to publication bias and the exclusion of unpublished studies from this review might have limited the accuracy of the synthesis. The present systematic review does not include a meta-analysis. This decision was made due to the large number of studies and the heterogeneity of the samples, methods, scales, and reported outcomes. Statistical analyses were used to compare self-stigma frequency in different geographical areas (the second objective of the present study). Future meta-analyses with a more limited focus (eg, on the impact of self-stigma on recovery-related outcomes) could be conducted to explore the present findings in more detail.

Conclusions

In short, self-stigma is a severe problem in all SMI conditions (including the at-risk stages) and all geographical areas and is associated with poor clinical and functional outcomes. Levels of public, perceived, and experienced stigma (including from mental health providers) are significant predictors of self-stigma, pleading for the reinforcement of anti-stigma campaigns and the development of recovery-oriented practices in mental health settings. The respective associations between the duration of untreated psychosis, self-stigma, and transition to psychosis support the development of recovery-oriented early intervention programs. Psychiatric rehabilitation could be an effective means of reducing self-stigma and should therefore be further developed in public policies.

Supplementary Material

Supplementary material is available at https://academic.oup.com/schizophreniabulletin/.

References

1. Link BG, Phelan JC. Conceptualizing stigma. *Annu Rev Sociol.* 2001;27:363–385.

2. Corrigan PW, Larson JE, Rüsch N. Self-stigma and the "why try" effect: impact on life goals and evidence-based practices. *World Psychiatry.* 2009;8(2):75–81.

3. Thornicroft G, Brohan E, Rose D, Sartorius N, Leese M; INDIGO Study Group. Global pattern of experienced and anticipated discrimination against people with schizophrenia: a cross-sectional survey. *Lancet.* 2009;373(9661):408–415.

4. Yanos PT, Roe D, Markus K, Lysaker PH. Pathways between internalized stigma and outcomes related to recovery in schizophrenia spectrum disorders. *Psychiatr Serv.* 2008;59(12):1437–1442.

5. Thoits PA. Resisting the stigma of mental illness. *Soc Psychol Q.* 2011;74(1):6–28.

6. Firmin RL, Luther L, Lysaker PH, Minor KS, Salyers MP. Stigma resistance is positively associated with psychiatric and psychosocial outcomes: a meta-analysis. *Schizophr Res.* 2016;175(1–3):118–128.

7. Livingston JD, Boyd JE. Correlates and consequences of internalized stigma for people living with mental illness: a systematic review and meta-analysis. *Soc Sci Med.* 2010;71(12):2150–2161.

8. Gerlinger G, Hauser M, De Hert M, Lacluyse K, Wampers M, Correll CU. Personal stigma in schizophrenia spectrum disorders: a systematic review of prevalence rates, correlates, impact and interventions. *World Psychiatry.* 2013;12(2):155–164.

9. Brohan E, Elgie R, Sartorius N, Thornicroft G; GAMIAN-Europe Study Group. Self-stigma, empowerment and perceived discrimination among people with schizophrenia in 14 European countries: the GAMIAN-Europe study. *Schizophr Res.* 2010;122(1–3):232–238.

10. Brohan E, Gauci D, Sartorius N, Thornicroft G; GAMIAN-Europe Study Group. Self-stigma, empowerment and perceived discrimination among people with bipolar disorder or depression in 13 European countries: the GAMIAN-Europe study. *J Affect Disord.* 2011;129(1–3):56–63.

11. Ellison N, Mason O, Scior K. Bipolar disorder and stigma: a systematic review of the literature. *J Affect Disord.* 2013;151(3):805–820.

12. Hawke LD, Parikh SV, Michalak EE. Stigma and bipolar disorder: a review of the literature. *J Affect Disord.* 2013;150(2):181–191.

13. West ML, Yanos PT, Smith SM, Roe D, Lysaker PH. Prevalence of internalized stigma among persons with severe mental illness. *Stigma Res Action.* 2011;1(1):3–10.

14. Yang LH, Chen FP, Sia KJ, et al. "What matters most:" a cultural mechanism moderating structural vulnerability and moral experience of mental illness stigma. *Soc Sci Med.* 2014;103:84–93.

15. Yanos PT, DeLuca JS, Salyers MP, Fischer MW, Song J, Caro J. Cross-sectional and prospective correlates of associative stigma among mental health service providers. *Psychiatr Rehabil J.* 2020;43(2):85–90.

16. Koschorke M, Padmavati R, Kumar S, et al. Experiences of stigma and discrimination of people with schizophrenia in India. *Soc Sci Med.* 2014;123:149–159.

17. Yang LH, Wonpat-Borja AJ, Opler MG, Corcoran CM. Potential stigma associated with inclusion of the psychosis risk syndrome in the DSM-V: an empirical question. *Schizophr Res.* 2010;120(1–3):42–48.

18. Yang LH, Anglin DM, Wonpat-Borja AJ, Opler MG, Greenspoon M, Corcoran CM. Public stigma associated with psychosis risk syndrome in a college population: implications for peer intervention. *Psychiatr Serv.* 2013;64(3):284–288.

19. Rüsch N, Hölzer A, Hermann C, et al. Self-stigma in women with borderline personality disorder and women with social phobia. *J Nerv Ment Dis.* 2006;194(10):766–773.

20. Gunderson JG, Herpertz SC, Skodol AE, Torgersen S, Zanarini MC. Borderline personality disorder. *Nat Rev Dis Primers.* 2018;4:18029.

21. Yanos PT, Lucksted A, Drapalski AL, Roe D, Lysaker P. Interventions targeting mental health self-stigma: a review and comparison. *Psychiatr Rehabil J.* 2015;38(2):171–178.

22. Franck N, Bon L, Dekerle M, et al. Satisfaction and needs in serious mental illness and autism spectrum disorder: the REHABase psychosocial rehabilitation project. *Psychiatr Serv.* 2019;70(4):316–323.

23. Moritz S, Gawęda Ł, Heinz A, Gallinat J. Four reasons why early detection centers for psychosis should be renamed and their treatment targets reconsidered: we should not catastrophize a future we can neither reliably predict nor change. *Psychol Med.* 2019;49(13):2134–2140.

24. Yang LH, Lo G, WonPat-Borja AJ, Singla DR, Link BG, Phillips MR. Effects of labeling and interpersonal contact upon attitudes towards schizophrenia: implications for reducing mental illness stigma in urban China. *Soc Psychiatry Psychiatr Epidemiol.* 2012;47(9):1459–1473.

25. Moher D, Shamseer L, Clarke M, et al. Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. *Syst Rev.* 2015;4:1.

26. Wood L, Byrne R, Varese F, Morrison AP. Psychosocial interventions for internalised stigma in people with a schizophrenia-spectrum diagnosis: a systematic narrative synthesis and meta-analysis. *Schizophr Res.* 2016;176(2–3):291–303.

27. Ross LE, Grigoriadis S, Mamisashvili L, et al. Quality assessment of observational studies in psychiatry: an example from perinatal psychiatric research. *Int J Methods Psychiatr Res.* 2011;20(4):224–234.

28. Kohrt BA, Rasmussen A, Kaiser BN, et al. Cultural concepts of distress and psychiatric disorders: literature review and research recommendations for global mental health epidemiology. *Int J Epidemiol.* 2014;43(2):365–406.

29. Ritsher JB, Otilingam PG, Grajales M. Internalized stigma of mental illness: psychometric properties of a new measure. *Psychiatry Res.* 2003;121(1):31–49.

30. Hofer A, Mizuno Y, Frajo-Apor B, et al. Resilience, internalized stigma, self-esteem, and hopelessness among people with schizophrenia: cultural comparison in Austria and Japan. *Schizophr Res.* 2016;171(1–3):86–91.

31. Mileva VR, Vázquez GH, Milev R. Effects, experiences, and impact of stigma on patients with bipolar disorder. *Neuropsychiatr Dis Treat.* 2013;9:31–40.

32. Corrigan P, Watson A, Barr L. The self-stigma of mental illness: implications for self-esteem and self-efficacy. *J Soc Clin Psychol.* 2006;25:875e884.

33. Krajewski C, Burazeri G, Brand H. Self-stigma, perceived discrimination and empowerment among people with a mental illness in six countries: Pan European stigma study. *Psychiatry Res.* 2013;210(3):1136–1146.

34. Caqueo-Urízar A, Boyer L, Urzúa A, Williams DR. Self-stigma in patients with schizophrenia: a multicentric study from three Latin-America countries. *Soc Psychiatry Psychiatr Epidemiol.* 2019;54(8):905–909.

35. Young DK, Ng PY. The prevalence and predictors of self-stigma of individuals with mental health illness in two Chinese cities. *Int J Soc Psychiatry.* 2016;62(2):176–185.

36. Livingston JD, Rossiter KR, Verdun-Jones SN. 'Forensic' labelling: an empirical assessment of its effects on self-stigma for people with severe mental illness. *Psychiatry Res.* 2011;188(1):115–122.

37. Livingston J. Self-stigma and quality of life among people with mental illness who receive compulsory community treatment services. *J Community Psychol.* 2012;40:699–714.

38. Harris JI, Farchmin L, Stull L, Boyd J, Schumacher M, Drapalski AL. Prediction of changes in self-stigma among veterans participating in partial psychiatric hospitalization: the role of disability status and military cohort. *Psychiatr Rehabil J.* 2015;38(2):179–185.

39. Kim WJ, Song YJ, Ryu HS, et al. Internalized stigma and its psychosocial correlates in Korean patients with serious mental illness. *Psychiatry Res.* 2015;225(3):433–439.

40. Kao YC, Lien YJ, Chang HA, Wang SC, Tzeng NS, Loh CH. Evidence for the indirect effects of perceived public stigma on psychosocial outcomes: the mediating role of self-stigma. *Psychiatry Res.* 2016;240:187–195.

41. Sarısoy G, Kaçar ÖF, Pazvantoğlu O, et al. Internalized stigma and intimate relations in bipolar and schizophrenic patients: a comparative study. *Compr Psychiatry.* 2013;54(6):665–672.

42. Howland M, Levin J, Blixen C, Tatsuoka C, Sajatovic M. Mixed-methods analysis of internalized stigma correlates in poorly adherent individuals with bipolar disorder. *Compr Psychiatry.* 2016;70:174–180.

43. Livingston J, Patel N, Bryson S, et al. Stigma associated with mental illness among Asian men in Vancouver, Canada. *Int J Soc Psychiatry.* 2018;64(7):679–689.

44. Lacey M, Paolini S, Hanlon MC, Melville J, Galletly C, Campbell LE. Parents with serious mental illness: differences in internalised and externalised mental illness stigma and gender stigma between mothers and fathers. *Psychiatry Res.* 2015;225(3):723–733.

45. Bradstreet S, Dodd A, Jones S. Internalised stigma in mental health: an investigation of the role of attachment style. *Psychiatry Res.* 2018;270:1001–1009.

46. Døssing M, Nilsson KK, Svejstrup SR, Sørensen VV, Straarup KN, Hansen TB. Low self-compassion in patients with bipolar disorder. *Compr Psychiatry.* 2015;60:53–58.

47. Denenny D, Thompson E, Pitts SC, Dixon LB, Schiffman J. Subthreshold psychotic symptom distress, self-stigma, and peer social support among college students with mental health concerns. *Psychiatr Rehabil J.* 2015;38(2):164–170.

48. Pyle M, Morrison AP. Internalised stereotypes across ultra-high risk of psychosis and psychosis populations. *Psychosis.* 2017;9:1–9.

49. Larsen EM, Herrera S, Bilgrami ZR, et al. Self-stigma related feelings of shame and facial fear recognition in individuals at clinical high risk for psychosis: a brief report. *Schizophr Res.* 2019;208:483–485.

50. Rüsch N, Heekeren K, Theodoridou A, et al. Stigma as a stressor and transition to schizophrenia after one year among young people at risk of psychosis. *Schizophr Res.* 2015;166(1–3):43–48.

51. Evans-Lacko S, Brohan E, Mojtabai R, Thornicroft G. Association between public views of mental illness and self-stigma among individuals with mental illness in 14 European countries. *Psychol Med.* 2012;42(8):1741–1752.

52. Wang K, Link BG, Corrigan PW, Davidson L, Flanagan E. Perceived provider stigma as a predictor of mental health service users' internalized stigma and disempowerment. *Psychiatry Res.* 2018;259:526–531.

53. Girma E, Tesfaye M, Froeschl G, Möller-Leimkühler AM, Dehning S, Müller N. Facility based cross-sectional study of self-stigma among people with mental illness: towards patient empowerment approach. *Int J Ment Health Syst.* 2013;7(1):21.

54. Makanjuola V, Esan Y, Oladeji B, et al. Explanatory model of psychosis: impact on perception of self-stigma by patients in three sub-Saharan African cities. *Soc Psychiatry Psychiatr Epidemiol.* 2016;51(12):1645–1654.

55. Ibrahim AW, Mukhtar YM, Sadique PK, et al. A facility-based assessment of internalized stigma among patients with severe mental illnesses in Maiduguri, North-Eastern Nigeria. *Int Neuropsychiatr Dis J.* 2016;6(1):1–11.

56. Chen ES, Chang WC, Hui CL, Chan SK, Lee EH, Chen EY. Self-stigma and affiliate stigma in first-episode psychosis patients and their caregivers. *Soc Psychiatry Psychiatr Epidemiol.* 2016;51(9):1225–1231.

57. Xu Z, Lay B, Oexle N, Drack T, et al. Involuntary psychiatric hospitalization, stigma stress and recovery: a 2-year study. *Epidemiol Psychiatr Sci.* 2018a;31:1–8.

58. Rüsch N, Müller M, Lay B, et al. Emotional reactions to involuntary psychiatric hospitalization and stigma-related stress among people with mental illness. *Eur Arch Psychiatry Clin Neurosci.* 2014;264(1):35–43.

59. Chang CC, Wu TH, Chen CY, Lin CY. Comparing self-stigma between people with different mental disorders in Taiwan. *J Nerv Ment Dis.* 2016;204(7):547–553.

60. Rüsch N, Corrigan PW, Wassel A, et al. Ingroup perception and responses to stigma among persons with mental illness. *Acta Psychiatr Scand.* 2009;120(4):320–328.

61. Hsiao CY, Lu HL, Tsai YF. Effect of family sense of coherence on internalized stigma and health-related quality of life among individuals with schizophrenia. *Int J Ment Health Nurs.* 2018;27(1):138–146.

62. Sorsdahl KR, Kakuma R, Wilson Z, Stein DJ. The internalized stigma experienced by members of a mental health advocacy group in South Africa. *Int J Soc Psychiatry.* 2012;58(1):55–61.

63. Verhaeghe M, Bracke P. Associative stigma among mental health professionals: implications for professional and service user well-being. *J Health Soc Behav.* 2012;53(1):17–32.

64. Chan KKS, Lam CB. The impact of familial expressed emotion on clinical and personal recovery among patients with psychiatric disorders: the mediating roles of self-stigma content and process. *Am J Orthopsychiatry.* 2018;88(6):626–635.

65. Chan RCH, Mak WWS, Lam MYY. Self-stigma and empowerment as mediating mechanisms between ingroup perceptions and recovery among people with mental illness. *Stigma and Health.* 2018a;3(3):283–293.

66. Gaziel M, Hasson-Ohayon I, Morag-Yaffe M, Schapir L, Zalsman G, Shoval G. Insight and satisfaction with life among adolescents with mental disorders: assessing associations with self-stigma and parental insight. *Eur Psychiatry.* 2015;30(2):329–333.

67. Mak WW, Wu CF. Cognitive insight and causal attribution in the development of self-stigma among individuals with schizophrenia. *Psychiatr Serv.* 2006;57(12):1800–1802.

68. Park SG, Bennett ME, Couture SM, Blanchard JJ. Internalized stigma in schizophrenia: relations with dysfunctional attitudes, symptoms, and quality of life. *Psychiatry Res.* 2013;205(1–2):43–47.

69. West ML, Mulay AL, DeLuca JS, et al. Forensic psychiatric experiences, stigma, and self-concept: a mixed-methods study. *J Forens Psychiatry Psychol.* 2018;29:574–596.

70. Lysaker PH, Vohs J, Hasson-Ohayon I, Kukla M, Wierwille J, Dimaggio G. Depression and insight in schizophrenia: comparisons of levels of deficits in social cognition and metacognition and internalized stigma across three profiles. *Schizophr Res.* 2013;148(1–3):18–23.

71. Chan RCH, Mak WWS. Common sense model of mental illness: understanding the impact of cognitive and emotional representations of mental illness on recovery through the mediation of self-stigma. *Psychiatry Res.* 2016;246:16–24.

72. Chiu MY, Davidson L, Lo WT, Yiu MG, Ho WW. Modeling self-agency among people with schizophrenia: empirical evidence for consumer-based recovery. *Psychopathology.* 2013;46(6):413–420.

73. Kvrgic S, Cavelti M, Beck EM, Rüsch N, Vauth R. Therapeutic alliance in schizophrenia: the role of recovery orientation, self-stigma, and insight. *Psychiatry Res.* 2013;209(1):15–20.

74. Hamann J, Bühner M, Rüsch N. Self-stigma and consumer participation in shared decision making in mental health services. *Psychiatr Serv.* 2017;68(8):783–788.

75. Cavelti M, Kvrgic S, Beck EM, Rüsch N, Vauth R. Self-stigma and its relationship with insight, demoralization, and clinical outcome among people with schizophrenia spectrum disorders. *Compr Psychiatry.* 2012;53(5):468–479.

76. Lien YJ, Chang HA, Kao YC, Tzeng NS, Lu CW, Loh CH. Insight, self-stigma and psychosocial outcomes in Schizophrenia: a structural equation modelling approach. *Epidemiol Psychiatr Sci.* 2018;27(2):176–185.

77. Lysaker PH, Roe D, Yanos PT. Toward understanding the insight paradox: internalized stigma moderates the association between insight and social functioning, hope, and self-esteem among people with schizophrenia spectrum disorders. *Schizophr Bull.* 2007;33(1):192–199.

78. Valiente C, Provencio M, Espinosa R, Duque A, Everts F. Insight in paranoia: the role of experiential avoidance and internalized stigma. *Schizophr Res.* 2015;164(1–3):214–220.

79. Konsztowicz S, Lepage M. The role of illness engulfment in the association between insight and depressive symptomatology in schizophrenia. *J Psychiatr Res.* 2019;111:1–7.

80. MacDougall AG, Vandermeer MR, Norman RM. Negative future self as a mediator in the relationship between insight and depression in psychotic disorders. *Schizophr Res.* 2015;165(1):66–69.

81. Aukst-Margetić B, Jakšić N, Boričević Maršanić V, Jakovljević M. Harm avoidance moderates the relationship between internalized stigma and depressive symptoms in patients with schizophrenia. *Psychiatry Res.* 2014;219(1):92–94.

82. Espinosa R, Valiente C, Rigabert A, Song H. Recovery style and stigma in psychosis: the healing power of integrating. *Cogn Neuropsychiatry.* 2016;21(2):146–155.

83. Świtaj P, Grygiel P, Anczewska M, Wciórka J. Loneliness mediates the relationship between internalised stigma and depression among patients with psychotic disorders. *Int J Soc Psychiatry.* 2014;60(8):733–740.

84. Rossi A, Galderisi S, Rocca P, et al. Personal resources and depression in schizophrenia: the role of self-esteem, resilience and internalized stigma. *Psychiatry Res.* 2017;256:359–364.

85. Mashiach-Eizenberg M, Hasson-Ohayon I, Yanos PT, Lysaker PH, Roe D. Internalized stigma and quality of life among persons with severe mental illness: the mediating roles of self-esteem and hope. *Psychiatry Res.* 2013;208(1):15–20.

86. Stip E, Caron J, Tousignant M, Lecomte Y. Suicidal ideation and schizophrenia: contribution of appraisal, stigmatization, and cognition. *Can J Psychiatry.* 2017;62(10):726–734.

87. Oexle N, Waldmann T, Staiger T, Xu Z, Rüsch N. Mental illness stigma and suicidality: the role of public and individual stigma. *Epidemiol Psychiatr Sci.* 2018;27(2):169–175.

88. Shin YJ, Joo YH, Kim JH. Self-perceived cognitive deficits and their relationship with internalized stigma and quality of life in patients with schizophrenia. *Neuropsychiatr Dis Treat.* 2016;12:1411–1417.

89. Corrigan PW, Bink AB, Schmidt A, Jones N, Rüsch N. What is the impact of self-stigma? Loss of self-respect and the "why try" effect. *J Ment Health.* 2016;25(1):10–15.

90. Cunningham KC, Lucksted A. Social cognition, internalized stigma, and recovery orientation among adults with serious mental illness. *Psychiatr Rehabil J.* 2017;40(4):409–411.

91. Corrigan PW, Michaels PJ, Powell K, et al. Who comes out with their mental illness and how does it help? *J Nerv Ment Dis.* 2016;204(3):163–168.

92. Galderisi S, Rucci P, Kirkpatrick B, et al. Interplay among psychopathologic variables, personal resources, context-related factors, and real-life functioning in individuals with schizophrenia: a network analysis. *JAMA Psychiatry.* 2018;75(4):396–404.

93. Dubreucq J, Plasse J, Gabayet F, et al. Self-stigma in serious mental illness and autism spectrum disorder: results from the REHABase national psychiatric rehabilitation cohort. *Eur Psychiatry.* 2020;63(1):e13.

94. Yildirim T, Kavak Budak F. The relationship between internalized stigma and loneliness in patients with schizophrenia. *Perspect Psychiatr Care.* 2020;56(1):168–174. doi: 10.1111/ppc.12399.

95. Prasko J, Ociskova M, Grambal A, et al. Personality features, dissociation, self-stigma, hope, and the complex treatment of depressive disorder. *Neuropsychiatr Dis Treat.* 2016;12:2539–2552.

96. Oexle N, Rüsch N, Viering S, et al. Self-stigma and suicidality: a longitudinal study. *Eur Arch Psychiatry Clin Neurosci.* 2017;267(4):359–361.

97. Ho RWH, Chang WC, Kwong VWY, et al. Prediction of self-stigma in early psychosis: 3-Year follow-up of the randomized-controlled trial on extended early intervention. *Schizophr Res.* 2018;195:463–468.

98. Ben-Zeev D, Frounfelker R, Morris SB, Corrigan PW. Predictors of self-stigma in schizophrenia: new insights using mobile technologies. *J Dual Diagn.* 2012;8(4):305–314.

99. Xu Z, Müller M, Lay B, et al. Involuntary hospitalization, stigma stress and suicidality: a longitudinal study. *Soc Psychiatry Psychiatr Epidemiol.* 2018;53(3):309–312.

100. Lysaker PH, Davis LW, Warman DM, Strasburger A, Beattie N. Stigma, social function and symptoms in schizophrenia and schizoaffective disorder: associations across 6 months. *Psychiatry Res.* 2007;149(1–3):89–95.

101. Lysaker PH, Roe D, Ringer J, Gilmore EM, Yanos PT. Change in self-stigma among persons with schizophrenia enrolled in rehabilitation: associations with self-esteem and positive and emotional discomfort symptoms. *Psychol Serv.* 2012;9(3):240–247.

102. Moses T. Coping strategies and self-stigma among adolescents discharged from psychiatric hospitalization: a 6-month follow-up study. *Int J Soc Psychiatry.* 2015;61(2):188–197.

103. Lysaker PH, Tunze C, Yanos PT, Roe D, Ringer J, Rand K. Relationships between stereotyped beliefs about mental illness, discrimination experiences, and distressed mood over 1 year

among persons with schizophrenia enrolled in rehabilitation. *Soc Psychiatry Psychiatr Epidemiol.* 2012;47(6):849–855.

104. Lagger N, Amering M, Sibitz I, Gmeiner A, Schrank B. Stability and mutual prospective relationships of stereotyped beliefs about mental illness, hope and depressive symptoms among people with schizophrenia spectrum disorders. *Psychiatry Res.* 2018;268:484–489.

105. Pearl RL, Forgeard MJC, Rifkin L, et al. Internalized stigma of mental illness: changes and associations with treatment outcomes. *Stigma Health.* 2017;2:2–15.

106. Sibitz I, Provaznikova K, Lipp M, Lakeman R, Amering M. The impact of recovery-oriented day clinic treatment on internalized stigma: preliminary report. *Psychiatry Res.* 2013;209(3):326–332.

107. Rüsch N, Nordt C, Kawohl W, et al. Work-related discrimination and change in self-stigma among people with mental illness during supported employment. *Psychiatr Serv.* 2014;65(12):1496–1498.

108. Segal SP, Silverman CJ, Temkin TL. Self-stigma and empowerment in combined-CMHA and consumer-run services: two controlled trials. *Psychiatr Serv.* 2013;64(10):990–996.

109. Cavelti M, Rüsch N, Vauth R. Is living with psychosis demoralizing? Insight, self-stigma, and clinical outcome among people with schizophrenia across 1 year. *J Nerv Ment Dis.* 2014;202(7):521–529.

110. Lysaker PH, Yanos PT, Outcalt J, Roe D. Association of stigma, self-esteem, and symptoms with concurrent and prospective assessment of social anxiety in schizophrenia. *Clin Schizophr Relat Psychoses.* 2010;4(1):41–48.

111. Pyle M, Stewart SL, French P, et al. Internalized stigma, emotional dysfunction and unusual experiences in young people at risk of psychosis. *Early Interv Psychiatry.* 2015;9(2):133–140.

112. Ritsher JB, Phelan JC. Internalized stigma predicts erosion of morale among psychiatric outpatients. *Psychiatry Res.* 2004;129(3):257–265.

113. Rüsch N, Oexle N, Thornicroft G, et al. Self-contempt as a predictor of suicidality: a longitudinal study. *J Nerv Ment Dis.* 2019;207(12):1056–1057.

114. Rüsch N, Corrigan PW, Wassel A, et al. Self-stigma, group identification, perceived legitimacy of discrimination and mental health service use. *Br J Psychiatry.* 2009;195(6):551–552.

115. Chio FHN, Mak WWS, Chan RCH, et al. Unraveling the insight paradox: one-year longitudinal study on the relationships between insight, self-stigma, and life satisfaction among people with schizophrenia spectrum disorders. *Schizophr Res.* 2018;197:124–130. doi: S0920-9964(18)30034-30033.

116. Oexle N, Müller M, Kawohl W, et al. Self-stigma as a barrier to recovery: a longitudinal study. *Eur Arch Psychiatry Clin Neurosci.* 2018;268(2):209–212.

117. Campbell DG, Bonner LM, Bolkan CR, et al. stigma predicts treatment preferences and care engagement among veterans affairs primary care patients with depression. *Ann Behav Med.* 2016;50(4):533–544.

118. Berry C, Greenwood K. Direct and indirect associations between dysfunctional attitudes, self-stigma, hopefulness and social inclusion in young people experiencing psychosis. *Schizophr Res.* 2018;193:197–203.

119. Yanos PT, Lysaker PH, Roe D. Internalized stigma as a barrier to improvement in vocational functioning among people with schizophrenia-spectrum disorders. *Psychiatry Res.* 2010;178(1):211–213.

120. Xu Z, Mayer B, Müller M, et al. Stigma and suicidal ideation among young people at risk of psychosis after one year. *Psychiatry Res.* 2016;243:219–224.

121. Xu Z, Müller M, Heekeren K, et al. Self-labelling and stigma as predictors of attitudes towards help-seeking among people at risk of psychosis: 1-year follow-up. *Eur Arch Psychiatry Clin Neurosci.* 2016;266(1):79–82.

122. Yanos PT, West ML, Gonzales L, Smith SM, Roe D, Lysaker PH. Change in internalized stigma and social functioning among persons diagnosed with severe mental illness. *Psychiatry Res.* 2012;200(2–3):1032–1034.

123. Sibitz I, Unger A, Woppmann A, Zidek T, Amering M. Stigma resistance in patients with schizophrenia. *Schizophr Bull.* 2011;37(2):316–323.

124. Bifftu BB, Dachew BA, Tiruneh BT. Stigma resistance among people with schizophrenia at Amanuel Mental Specialized Hospital Addis Ababa, Ethiopia: a cross-sectional institution based study. *BMC Psychiatry.* 2014;14:259.

125. Mosanya TJ, Adelufosi AO, Adebowale OT, Ogunwale A, Adebayo OK. Self-stigma, quality of life and schizophrenia: an outpatient clinic survey in Nigeria. *Int J Soc Psychiatry.* 2014;60(4):377–386.

126. Vidović D, Brecić P, Vilibić M, Jukić V. Insight and self-stigma in patients with schizophrenia. *Acta Clin Croat.* 2016;55(1):23–28.

127. Ran MS, Zhang TM, Wong IY, et al. Internalized stigma in people with severe mental illness in rural China. *Int J Soc Psychiatry.* 2018;64(1):9–16.

128. Firmin RL, Luther L, Salyers MP, Buck KD, Lysaker PH. Greater metacognition and lower fear of negative evaluation: potential factors contributing to improved stigma resistance among individuals diagnosed with schizophrenia. *Isr J Psychiatry Relat Sci.* 2017;54(1):50–54.

129. Kao YC, Lien YJ, Chang HA, Tzeng NS, Yeh CB, Loh CH. Stigma resistance in stable schizophrenia: the relative contributions of stereotype endorsement, self-reflection, self-esteem, and coping styles. *Can J Psychiatry.* 2017;62(10):735–744.

130. Nabors LM, Yanos PT, Roe D, et al. Stereotype endorsement, metacognitive capacity, and self-esteem as predictors of stigma resistance in persons with schizophrenia. *Compr Psychiatry.* 2014;55(4):792–798.

131. Chan KKS, Lee CWL, Mak WWS. Mindfulness model of stigma resistance among individuals with psychiatric disorders. *Mindfulness.* 2018b;9:1433–1442.

132. Campellone TR, Caponigro JM, Kring AM. The power to resist: the relationship between power, stigma, and negative symptoms in schizophrenia. *Psychiatry Res.* 2014;215(2):280–285.

133. O'Connor LK, Yanos PT, Firmin RL. Correlates and moderators of stigma resistance among people with severe mental illness. *Psychiatry Res.* 2018;270:198–204.

134. Krendl AC, Pescosolido BA. Countries and cultural differences in the stigma of mental illness: the east–west divide. *J Cross-Cult Psychol.* 2020;51(2):149–167.

135. Alonso J, Buron A, Bruffaerts R, et al. Association of perceived stigma and mood and anxiety disorders: results from the World Mental Health Surveys. *Acta Psychiatr Scand.* 2008;118(4):305–314.

136. Rose D, Willis R, Brohan E, et al. Reported stigma and discrimination by people with a diagnosis of schizophrenia. *Epidemiol Psychiatr Sci.* 2011;20(2):193–204.

137. Üçok A, Karadayı G, Emiroğlu B, Sartorius N. Anticipated discrimination is related to symptom severity,

functionality and quality of life in schizophrenia. *Psychiatry Res.* 2013;209(3):333–339.

138. Lv Y, Wolf A, Wang X. Experienced stigma and self-stigma in Chinese patients with schizophrenia. *Gen Hosp Psychiatry.* 2013;35(1):83–88.

139. Li J, Guo YB, Huang YG, et al. Stigma and discrimination experienced by people with schizophrenia living in the community in Guangzhou, China. *Psychiatry Res.* 2017;255:225–231.

140. Yang LH, Thornicroft G, Alvarado R, Vega E, Link BG. Recent advances in cross-cultural measurement in psychiatric epidemiology: utilizing 'what matters most' to identify culture-specific aspects of stigma. *Int J Epidemiol.* 2014;43(2):494–510.

141. Xu Z, Huang F, Kösters M, Rüsch N. Challenging mental health related stigma in China: systematic review and meta-analysis. II. Interventions among people with mental illness. *Psychiatry Res.* 2017;255:457–464.

142. Special Eurobarometer n°248. *Mental Well-being*. 2006. https://ec.europa.eu/health/ph_information/documents/ebs_248_en.pdf. Accessed December 26, 2019.

143. Special Eurobarometer n°345. *Mental Health*. 2010. https://ec.europa.eu/commfrontoffice/publicopinion/archives/ebs/ebs_345_en.pdf. Accessed December 26, 2019.

144. Pescosolido BA, Medina TR, Martin JK, Long JS. The "backbone" of stigma: identifying the global core of public prejudice associated with mental illness. *Am J Public Health.* 2013;103(5):853–860.

145. Pew Research Center. *Eastern and Western Europeans Differ on Importance of Religion, Views of Minorities, and Key Social Issues*. 2018. www.pewresearch.org. Accessed September 22, 2019.

146. Pew Research Center. *European Public Opinion Three Decades After the Fall of Communism*. 2019. www.pewresearch.org. Accessed September 22, 2019.

147. Gonzales L, Yanos PT, Stefancic A, Alexander MJ, Harney-Delehanty B. The role of neighborhood factors and community stigma in predicting community participation among persons with psychiatric disabilities. *Psychiatr Serv.* 2018;69(1):76–83.

148. DeLuca JS, Vaccaro J, Seda J, Yanos PT. Political attitudes as predictors of the multiple dimensions of mental health stigma. *Int J Soc Psychiatry.* 2018;64(5):459–469.

149. Zhang YB, Lin MC, Nonaka A, et al. Harmony, hierarchy and conservatism: a cross-cultural comparison of confucian values in China, Korea, Japan, and Taiwan. *Commun Res Rep.* 2005;22(2):107–115.

150. Yang LH, Link BG, Ben-David S, et al. Stigma related to labels and symptoms in individuals at clinical high-risk for psychosis. *Schizophr Res.* 2015;168(1–2):9–15.

151. Mulfinger N, Müller S, Böge I, et al. Honest, Open, Proud for adolescents with mental illness: pilot randomized controlled trial. *J Child Psychol Psychiatry.* 2018;59(6):684–691.

152. James TT, Kutty VR. Assessment of internalized stigma among patients with mental disorders in Thiruvananthapuram district, Kerala, India. *Asia Pac J Public Health.* 2015;27(4):439–449.

153. Segalovich J, Doron A, Behrbalk P, Kurs R, Romem P. Internalization of stigma and self-esteem as it affects the capacity for intimacy among patients with schizophrenia. *Arch Psychiatr Nurs.* 2013;27(5):231–234.

154. Johnson S, Lamb D, Marston L, et al. Peer-supported self-management for people discharged from a mental health crisis team: a randomised controlled trial. *Lancet.* 2018;392(10145):409–418.

155. Thornicroft G, Farrelly S, Szmukler G, et al. Clinical outcomes of Joint Crisis Plans to reduce compulsory treatment for people with psychosis: a randomised controlled trial. *Lancet.* 2013;381(9878):1634–1641.

156. Ashcraft L, Bloss M, Anthony WA. Best practices: the development and implementation of "no force first" as a best practice. *Psychiatr Serv.* 2012;63(5):415–417.

157. Meadows G, Brophy L, Shawyer F, et al. REFOCUS-PULSAR recovery-oriented practice training in specialist mental health care: a stepped-wedge cluster randomised controlled trial. *Lancet Psychiatry.* 2019;6(2):103–114.

158. Browne J, Mueser KT, Meyer-Kalos P, Gottlieb JD, Estroff SE, Penn DL. The therapeutic alliance in individual resiliency training for first episode psychosis: relationship with treatment outcomes and therapy participation. *J Consult Clin Psychol.* 2019;87(8):734–744.

159. Green MF, Horan WP, Lee J. Nonsocial and social cognition in schizophrenia: current evidence and future directions. *World Psychiatry.* 2019;18(2):146–161.

160. Granholm E, Harvey PD. Social skills training for negative symptoms of schizophrenia. *Schizophr Bull.* 2018;44(3):472–474.

161. Xia J, Merinder LB, Belgamwar MR. Psychoeducation for schizophrenia. *Cochrane Database Syst Rev.* 2011;15(6):CD002831.

162. Dubreucq J, Ycart B, Gabayet F, et al. Towards an improved access to psychiatric rehabilitation: availability and effectiveness at 1-year follow-up of psychoeducation, cognitive remediation therapy, cognitive behaviour therapy and social skills training in the FondaMental Advanced Centers of Expertise-Schizophrenia (FACE-SZ) national cohort. *Eur Arch Psychiatry Clin Neurosci.* 2019;269(5):599–610.

163. Pharoah F, Mari J, Rathbone J, et al. Family intervention for schizophrenia. *Cochrane Database Syst Rev.* 2010;(12):CD000088.

164. Corrigan PW, Watson AC, Miller FE. Blame, shame, and contamination: the impact of mental illness and drug dependence stigma of family members. *J Fam Psychol.* 2006;20:239–246.

165. Glynn SM, Cohen AN, Niv N. New challenges in family interventions for schizophrenia. *Expert Rev Neurother.* 2007;7(1):33–43.

166. Vauth R, Bull N, Schneider G. *Emotions- und stigmafokussierte Angehörigenarbeit bei psychotischen Störungen*. Göttingen: Hogrefe; 2009.

167. Hasson-Ohayon I, Pijnenborg GHM, Ben-Pazi A, Taitel S, Goldzweig G. Coping with information style and family burden: possible roles of self-stigma and hope among parents of children in a psychiatric inpatient unit. *Eur Psychiatry.* 2017;42:8–13.

168. Morris E, Hippman C, Murray G, et al. Self-stigma in relatives of people with mental illness scale: development and validation. *Br J Psychiatry.* 2018;212(3):169–174.

169. Grambal A, Prasko J, Kamaradova D, et al. Self-stigma in borderline personality disorder—cross-sectional comparison with schizophrenia spectrum disorder, major depressive disorder, and anxiety disorders. *Neuropsychiatr Dis Treat.* 2016;12:2439–2448.

170. Kamaradova D, Latalova K, Prasko J, et al. Connection between self-stigma, adherence to treatment, and discontinuation of medication. *Patient Prefer Adherence.* 2016;10:1289–1298.

171. Szcześniak D, Kobyłko A, Wojciechowska I, Kłapciński M, Rymaszewska J. Internalized stigma and its correlates among patients with severe mental illness. *Neuropsychiatr Dis Treat.* 2018;14:2599–2608.

172. Sibitz I, Amering M, Unger A, et al. The impact of the social network, stigma and empowerment on the quality of life in patients with schizophrenia. *Eur Psychiatry.* 2011;26(1):28–33.

173. Galderisi S, Rossi A, Rocca P, et al. The influence of illness-related variables, personal resources and context-related factors on real-life functioning of people with schizophrenia. *World Psychiatry.* 2014;13(3):275–287.

174. Rossi A, Galderisi S, Rocca P, et al. The relationships of personal resources with symptom severity and psychosocial functioning in persons with schizophrenia: results from the Italian Network for Research on Psychoses study. *Eur Arch Psychiatry Clin Neurosci.* 2017;267(4):285–294.

175. Bouvet C, Bouchoux A. [Exploring the relationship between internalized stigma, insight and depression for inpatients with schizophrenia]. *Encephale.* 2015;41(5):435–443.

176. Vrbova K, Prasko J, Holubova M, et al. Self-stigma and schizophrenia: a cross-sectional study. *Neuropsychiatr Dis Treat.* 2016;12:3011–3020.

177. Surmann M, Gruchalla LV, Falke S, et al. The importance of strengthening competence and control beliefs in patients with psychosis to reduce treatment hindering self-stigmatization. *Psychiatry Res.* 2017;255:314–320.

178. Holubova M, Prasko J, Matousek S, et al. Comparison of self-stigma and quality of life in patients with depressive disorders and schizophrenia spectrum disorders—a cross-sectional study. *Neuropsychiatr Dis Treat.* 2016;12:3021–3030.

179. Uhlmann C, Kaehler J, Harris MS, Unser J, Arolt V, Lencer R. Negative impact of self-stigmatization on attitude toward medication adherence in patients with psychosis. *J Psychiatr Pract.* 2014;20(5):405–410.

180. Post F, Pardeller S, Frajo-Apor B, et al. Quality of life in stabilized outpatients with bipolar I disorder: associations with resilience, internalized stigma, and residual symptoms. *J Affect Disord.* 2018;238:399–404.

181. Quenneville AF, Badoud D, Nicastro R, et al. Internalized stigmatization in borderline personality disorder and attention deficit hyperactivity disorder in comparison to bipolar disorder. *J Affect Disord.* 2020;262:317–322.

182. Lanfredi M, Zoppei S, Ferrari C, et al. Self-stigma as a mediator between social capital and empowerment among people with major depressive disorder in Europe: the ASPEN study. *Eur Psychiatry.* 2015;30(1):58–64.

183. Ociskova M, Prasko J, Kamaradova D, Grambal A, Sigmundova Z. Individual correlates of self-stigma in patients with anxiety disorders with and without comorbidities. *Neuropsychiatr Dis Treat.* 2015;11:1767–1779.

184. Moritz S, Spirandelli K, Happach I, Lion D, Berna F. Dysfunction by disclosure? Stereotype threat as a source of secondary neurocognitive malperformance in obsessive-compulsive disorder. *J Int Neuropsychol Soc.* 2018;24(6):584–592.

185. Boyd JE, Juanamarga J, Hashemi P. Stigma of taking psychiatric medications among psychiatric outpatient veterans. *Psychiatr Rehabil J.* 2015;38(2):132–134.

186. Drapalski AL, Lucksted A, Perrin PB, et al. A model of internalized stigma and its effects on people with mental illness. *Psychiatr Serv.* 2013;64(3):264–269.

187. Chronister J, Chou CC, Liao HY. The role of stigma coping and social support in mediating the effect of societal stigma on internalized stigma, mental health recovery, and quality of life among people with serious mental illness. *J community psychol* 2013;41:582–600.

188. Kira IA, Ramaswamy V, Lewandowski L, Mohanesh J, Abdul-Khalek H. Psychometric assessment of the Arabic version of the Internalized Stigma of Mental Illness (ISMI) measure in a refugee population. *Transcult Psychiatry.* 2015;52(5):636–658.

189. Tomar N, Brinkley-Rubinstein L, Ghezzi MA, Van Deinse TB, Burgin S, Cuddeback GS. Internalized stigma and its correlates among justice-involved individuals with mental illness. *Int J Ment Health.* 2019;49(20):1–11. doi:10.1080/00207411.2019.1703358

190. Jahn DR, Leith J, Muralidharan A, et al. The influence of experiences of stigma on recovery: mediating roles of internalized stigma, self-esteem, and self-efficacy. *Psychiatr Rehabil J.* 2020;43(2):97–105.

191. Villotti P, Corbière M, Dewa CS, et al. A serial mediation model of workplace social support on work productivity: the role of self-stigma and job tenure self-efficacy in people with severe mental disorders. *Disabil Rehabil.* 2018;40(26):3113–3119.

192. Firmin RL, Lysaker PH, Luther L, et al. Internalized stigma in adults with early phase versus prolonged psychosis. *Early Interv Psychiatry.* 2019;13(4):745–751.

193. Link BG, Wells J, Phelan JC, Yang L. Understanding the importance of "symbolic interaction stigma": how expectations about the reactions of others adds to the burden of mental illness stigma. *Psychiatr Rehabil J.* 2015;38(2):117–124.

194. Bassirnia A, Briggs J, Kopeykina I, Mednick A, Yaseen Z, Galynker I. Relationship between personality traits and perceived internalized stigma in bipolar patients and their treatment partners. *Psychiatry Res.* 2015;230(2):436–440.

195. Hill K, Startup M. The relationship between internalized stigma, negative symptoms and social functioning in schizophrenia: the mediating role of self-efficacy. *Psychiatry Res.* 2013;206(2–3):151–157.

196. Grover S, Avasthi A, Singh A, et al. Stigma experienced by patients with severe mental disorders: a nationwide multicentric study from India. *Psychiatry Res.* 2017;257:550–558.

197. Maharjan S, Panthee B. Prevalence of self-stigma and its association with self-esteem among psychiatric patients in a Nepalese teaching hospital: a cross-sectional study. *BMC Psychiatry.* 2019;19(1):347.

198. Singh A, Mattoo SK, Grover S. Stigma and its correlates in patients with schizophrenia attending a general hospital psychiatric unit. *Indian J Psychiatry.* 2016;58(3):291–300.

199. Pal A, Sharan P, Chadda RK. Internalized stigma and its impact in Indian outpatients with bipolar disorder. *Psychiatry Res.* 2017;258:158–165.

200. Grover S, Hazari N, Aneja J, Chakrabarti S, Avasthi A. Stigma and its correlates among patients with bipolar disorder: a study from a tertiary care hospital of North India. *Psychiatry Res.* 2016;244:109–116.

201. Sahoo S, Grover S, Malhotra R, Avasthi A. Internalized stigma experienced by patients with first-episode depression: a study from a tertiary care center. *Indian J Soc Psychiatry.* 2018;34:21–29.

202. Picco L, Pang S, Lau YW, et al. Internalized stigma among psychiatric outpatients: associations with quality

of life, functioning, hope and self-esteem. *Psychiatry Res.* 2016;246:500–506.

203. Pribadi T, Lin EC, Chen PS, Lee SK, Fitryasari R, Chen CH. Factors associated with internalized stigma for Indonesian individuals diagnosed with schizophrenia in a community setting. *J Psychiatr Ment Health Nurs.* 2020;27(5):584–594.

204. Kim EY, Jang MH. The mediating effects of self-esteem and resilience on the relationship between internalized stigma and quality of life in people with schizophrenia. *Asian Nurs Res (Korean Soc Nurs Sci).* 2019;13(4):257–263.

205. Lu Y, Wang X. Correlation between insight and internalized stigma in patients with schizophrenia. *Shanghai Arch Psychiatry.* 2012;24(2):91–98.

206. Park K, MinHwa L, Seo M. The impact of self-stigma on self-esteem among persons with different mental disorders. *Int J Soc Psychiatry.* 2019;65(7–8):558–565.

207. Woon LS, Khoo SI, Baharudin A, Midin M. Association between insight and internalized stigma and other clinical factors among patients with depression: a cross-sectional study. *Indian J Psychiatry.* 2020;62(2):186–192.

208. Ghanean H, Nojomi M, Jacobsson L. Internalized stigma of mental illness in Tehran, Iran. *Stigma Research and Action* 2011;1:11–17

209. Tanriverdi D, Kaplan V, Bilgin S, et al. The comparison of internalized stigmatization levels of patients with different mental disorders. *J Subst Use.* 2019;25(3):251–257. doi: 10.1080/14659891.2019.1675790

210. Hasson-Ohayon I, Mashiach-Eizenberg M, Lysaker PH, Roe D. Self-clarity and different clusters of insight and self-stigma in mental illness. *Psychiatry Res.* 2016;240:308–313.

211. Korkmaz G, Küçük L. Internalized stigma and perceived family support in acute psychiatric in-patient units. *Arch Psychiatr Nurs.* 2016;30(1):55–61.

212. Çapar M, Kavak F. Effect of internalized stigma on functional recovery in patients with schizophrenia. *Perspect Psychiatr Care.* 2019;55(1):103–111.

213. Olçun Z, Şahin Altun Ö. The correlation between schizophrenic patients' level of internalized stigma and their level of hope. *Arch Psychiatr Nurs.* 2017;31(4):332–337.

214. Yılmaz E, Okanlı A. The effect of internalized stigma on the adherence to treatment in patients with schizophrenia. *Arch Psychiatr Nurs.* 2015;29(5):297–301.

215. Cerit C, Filizer A, Tural Ü, Tufan AE. Stigma: a core factor on predicting functionality in bipolar disorder. *Compr Psychiatry.* 2012;53(5):484–489.

216. Sadighi G, Reza Khodaei M, Fadai F, et al. Self-stigma among people with bipolar-I disorder in Iran. *Iran Rehabil J.* 2015;13(1):28–32.

217. Adewuya AO, Owoeye AO, Erinfolami AO, Ola BA. Correlates of self-stigma among outpatients with mental illness in Lagos, Nigeria. *Int J Soc Psychiatry.* 2011;57(4):418–427.

218. Asrat B, Ayenalem AE, Yimer T. Internalized stigma among patients with mental illness attending psychiatric follow-up at Dilla University Referral Hospital, Southern Ethiopia. *Psychiatry J.* 2018;2018:1987581.

219. Fadipe B, Adebowale TO, Ogunwale A, et al. Internalized stigma in schizophrenia: a cross-sectional study of prevalence and predictors. *Int J Cult Ment Health.* 2018;11(1):1–12. doi: 10.1080/17542863.2018.1450431

220. Assefa D, Shibre T, Asher L, Fekadu A. Internalized stigma among patients with schizophrenia in Ethiopia: a cross-sectional facility-based study. *BMC Psychiatry.* 2012;12:239.

221. Lau YW, Picco L, Pang S, et al. Stigma resistance and its association with internalised stigma and psychosocial outcomes among psychiatric outpatients. *Psychiatry Res.* 2017;257:72–78.

222. Karakaş SA, Okanlı A, Yılmaz E. The effect of internalized stigma on the self-esteem in patients with schizophrenia. *Arch Psychiatr Nurs.* 2016;30(6):648–652.