Self-stigmatization in bipolar disorders: a systematic review

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SELF-STIGMATIZATION IN BIPOLAR DISORDERS: A SYSTEMATIC REVIEW.

Thesis submitted to the Faculty of Medicine of
the University of Geneva

for the degree of Privat-Docent
by

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Abstract

Background: Bipolar disorder is a severe and chronic mental illness characterized by recurrent major depressive episodes and mania or hypomania during the course of the illness. In addition to the burden of the disease and its consequences, people living with severe mental illness have a propensity to self-stigma that is being aware of and internalizing public stigma. This review examines self-stigma in bipolar disorder.

Methods: An electronic search was carried out during the last week of August 2020. Three academic databases – *PubMed, Embase,* and *PsycInfo* – were systematically searched, based on the PRISMA guidelines.

Results: Fifty-six articles concern the question of self-stigma in bipolar disorder. The following key themes emerge from this review: 1/ Comparison of self-stigma in bipolar disorder and other mental illnesses, 2/ Sociocultural context and self-stigma, 3/ Correlates and predictors of self-stigma, 4/ Consequences of self-stigma, 5/ Treatments and self-stigma, 6/ Management of self-stigma, and 7/ Self-stigma and recovery in bipolar disorder.

Conclusion: Like many other people with severe mental illness, people living with bipolar disorder are highly self-stigmatized, and this self-stigma has critical impacts on their lives. Some interventions intended to reduce self-stigmatization have been developed but evidence of their effectiveness is still sparse. Clinicians need to be more aware of and attentive to self-stigma, its assessment and its empowerment in their daily clinical practice. Future work is required to establish valid strategies to fight self-stigma.

1. Introduction

Bipolar disorder (BD) is a severe and chronic mental illness characterized by recurrent major depressive episodes and mania (BD-I) or hypomania (BD-II) during the course of the illness. No biomarkers have been validated for BD, which makes clinical diagnosis very important (Grande, Berk, Birmaher, & Vieta, 2016). Based on the classification system presented in the 5th edition of the *Diagnostic and Statistical Manual* (DSM-5) (American Psychiatric Association, 2013), the criteria for a major depressive episode criteria are: 1/ Depressed most of the day, nearly every day, 2/ Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day, 3/ Significant weight loss when not dieting or weight gain (e.g., change of more than 5% of body weight in a month), or decrease or increase in appetite nearly every day, 4/ Insomnia or hypersomnia nearly every day, 5/ Psychomotor agitation or retardation nearly every day, 6/ Fatigue or loss of energy nearly every day, 7/ Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day, 8/ Diminished ability to think or concentrate, or indecisiveness, nearly every day, and 9/ Recurrent thoughts of death, recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide. Five or more of these symptoms must have been present during the same two-week period and represent a change from previous functioning; at least one of the symptoms must be either depressed mood or loss of interest or pleasure. In contrast, the DSM-5 criteria for a manic episode are: 1/ Inflated self-esteem or grandiosity, 2/ Inflated self-esteem or grandiosity, 3/ More talkative than usual or pressure to keep talking, 4/ Flight of ideas or subjective experience that thoughts are racing, 5/ Distractibility (i.e., attention too easily drawn to unimportant or irrelevant external stimuli), as reported or observed, 6/ Increase in goal-directed activity (either socially, at work or school, or sexually) or psychomotor agitation, and 7/ Excessive involvement in activities that have a high potential for painful consequences (e.g., engaging in unrestrained buying sprees, sexual indiscretions, or foolish business investments).Three or more of the symptoms must have persisted for at least one week. Moreover, the mood disturbance must be sufficiently severe to cause marked impairment in functioning or necessitate hospitalization, or there must be psychotic features. The criteria for a hypomanic episode are the same as the criteria for a manic episode, but the minimum time required is shorter (at least four days). Moreover, the mood disturbance must not be severe enough to cause a marked impairment in functioning or necessitate hospitalization, and there should be no psychotic features (DSM-5).

BD, as strictly defined according to current international classifications, is estimated to affect between 0.3% and 1.5% of the global population (Pini et al., 2005). As for the broader concept of bipolar spectrum disorder (BSD), some authors suggest that BSD might affect up to 6% of the general population (Judd & Akiskal, 2003), while it has also been reported that 24% of a 20-year prospective community cohort developed some degree of BSD (Angst et al., 2003). BD begins most often in young adults. One study reports that the overwhelming majority of individuals (76.2%) experienced the onset of BD before age 21 (Perlis et al., 2009). More specifically, approximately half of those with BD-I report an onset before age 25, while those with BD-II report a slightly later age of onset (Merikangas et al., 2011). Interestingly, the frequency of identified affective illness among first-degree relatives is strongly related to onset age: the prevalence of family affective history is highest with childhood onset (<12) (83.1%); similar from ages 12 through 39 (averaging 60.7 ± 1.4%) years; and declines with higher onset ages (Baldessarini et al., 2012). Moreover, some authors report an estimated heritability of ~60% to 85% (Bienvenu, Davydow, & Kendler, 2011; Lichtenstein et al., 2009). Most studies have found equal gender ratios in the 12-month and lifetime prevalence, without clear evidence between men and women in age at onset or polarity at onset (Diflorio & Jones, 2010). However, some studies report that that BD-II patients are usually more likely to be female, and to have less severe but more frequent and chronic depressive episodes (Koukopoulos, Reginaldi, Tondo, Visioli, & Baldessarini, 2013; Serafini et al., 2019). Furthermore, there are differences in psychiatric comorbidities between men and women: post-traumatic stress disorder, anxiety disorders and bulimia nervosa are more commonly diagnosed in women living with BD (Baldassano, 2006) while substance use disorders are higher among men living with BD (Kessing, 2004).

In recent decades, significant advances in psychiatric therapeutics and psychosocial interventions (psychoeducation, cognitive behavioral therapy (CBT), family-focused therapy, interpersonal and social rhythm therapy, etc.) have been incorporated into community standards of clinical care (Fountoulakis et al., 2017; Malhi, Gessler, & Outhred, 2017; Woo et al., 2018; Yatham et al., 2018). However, in spite of these treatments, about a quarter of people living with BD experience a recurrence every year (Vazquez, Holtzman, Lolich, Ketter, & Baldessarini, 2015). Risk factors for recurrence are younger age of onset, psychotic features, rapid cycling, increasingly frequent episodes, comorbid anxiety, and comorbid substance abuse disorders (Yatham, et al., 2018). Moreover, people living with BD are symptomatically ill almost half of the time and depressive symptoms predominate over manic/hypomanic symptoms (Forte et al., 2015). The risk of suicide among people living with BD is up to 20 to 30 times greater than in the general population, and is especially high for younger people during the early years after the BD diagnosis (Pompili et al., 2013). Moreover, suicide attempts are more frequent in women (Baldassano, 2006) while successful suicide is more common among men (Pompili et al., 2013). Finally, BD is responsible for the loss of more disability-adjusted life-years than all forms of cancer or major neurological conditions (World Health Organization, 2002), because of its early onset, chronicity, severity of functional impairment and impact on quality of life (Michalak, Yatham, & Lam, 2005).

In addition to the burden of the disease and its consequences, people living with BD, like many other people suffering from mental illness, have to deal with public stigmatization (Yatham, et al., 2018). While the "stigma may seem invisible, its effects are not. People with mental illness say that stigma can be worse than the illness itself" (Mood Disorders Society of Canada, 2020). According to the World Health Organization (Organisation mondiale de la santé. Département santé mentale et toxicomanies, 2001), stigma is the "most important barrier to overcome in the community" for the management of mental illness. It is a concept developed within the field of social psychology and is particularly well described by Goffman (1963). Stigma is usually defined as a form of social construction indicating a distinctive mark to which a socially shameful character is attributed and which, at the same time, expresses a social identity. The other social qualities of the individual then take a back seat. Goffman (1963) refers to a "spoiled identity" and describes three forms of stigmatization: 1/ External, visible disgraces such as scars, physical infirmities, or obesity, 2/ "Deviations" from personal traits, including mental disorders and criminal history, and 3/ Ethnic groups, nationalities and religions perceived as outside social norms. In the field of mental health, cultural and societal perceptions represent mental illness as a tangible threat to the community because mental illness generates two fears: fear of the potential and immediate danger of being assaulted and fear that we too may lose our minds. Moreover, since the stereotypical image of a person with a mental disorder is a weak, maladjusted, and sometimes dangerous person who is unable to integrate, mental illness is also felt as a symbolic risk to the ideas and value system that individuals have in common (Bonsack, 2014). Thornicroft et al. (2008) define public stigma by bringing three components into play:

1/ Stereotypes: symbolic and schematic characterizations held by a community about a group of individuals. Stereotypes are built on preconceived, erroneous expectations and judgments, often simplifying complex issues. The community then tends to generalize and/or anticipate an individual's behavior according to the stereotypes defining the group to which he or she belongs (Hamilton & Sherman, 1994);
2/ Prejudice: negative emotional reactions such as disgust, anger or fear (Eagly & Chaiken, 1993), which are direct consequences of stereotypes;
3/ Discrimination: behavioral reactions resulting from prejudice (Corrigan, Larson, & Rusch, 2009).

For several years, promoted by the World Health Organization in particular, numerous measures have been taken by public authorities and associations in various countries to fight the stigmatization of mental illness (Lamboy & Saïas, 2013). However, generalist and ad hoc media campaigns are currently being questioned because they are considered to be ineffective and too costly (Lamboy & Saïas, 2013). The reduction of public stigma should be organized around three axes: protest, education and contact (Corrigan & Penn, 1999). Protest involves moral and civic indignation, the fight against discrimination, and actions to assert rights and duties; education involves specific and adapted training of the general public on mental health disorders; and contact suggests direct interactions, discussions, and activities between the general public and people with mental illness. Corrigan and Watson (2002) observe that contact and, to a lesser extent, education are relatively effective at inducing a more positive view of mental illness in the general population. Finally, to be effective, anti-stigma programs must be developed in close collaboration with people living with mental illness (Lamboy & Saïas, 2013).

Self-stigmatization has been defined as the process by which individuals with serious mental illness (SMI) become aware of and internalize public stigma (Corrigan, Larson, & Kuwabara, 2010). Like public stigma, self-stigmatization can be conceptualized as a series of steps: initially a patient is aware of societal stereotypes about mental illness: "I know that part of society thinks that the mentally ill are dangerous and incapable of doing anything." The next stage is self-harm, which means that the patient agrees with the stereotype that concerns him or her: "a person at work said that I was incompetent because of my illness. I believe he was right: I don't feel capable of working." Finally, self-stigma arises when the patient avoids situations due to mental illness: "I'm useless and good for nothing. Why would I apply for a better job?" (Larson & Corrigan, 2010; Quinn, Williams, & Weisz, 2015). Self-stigmatization alters the constructed identity and limits the hoped-for identity (self as student, self as parent, self as worker, self as spouse, etc.) (Yanos, Roe, & Lysaker, 2011). It can have a particularly harmful effect in a period of identity building or identity crisis (Bonsack, 2014) and lead to a form of learned helplessness, the "why try?" attitude (Corrigan, et al., 2009). Self-stigmatization has numerous negative consequences: poor social relations (Corrigan & Penn, 1999; Lysaker, Roe, & Yanos, 2007), unemployment (Link, 1987), low self-esteem and anxiety (Watson, Corrigan, Larson, & Sells, 2007; Wright, Gronfein, & Owens, 2000), hopelessness (Lysaker, et al., 2007; Yanos, Roe, Markus, & Lysaker, 2008). Self-stigma can influence people in their personal or professional choices: patients self-censor decisions such as getting married, having children, applying for jobs or accepting positions of responsibility (Meiser et al., 2007; Michalak, Yatham, Kolesar, & Lam, 2006). Self-stigma also has a negative impact on the course of the disease, as it is correlated with more severe symptoms, more relapses, and more frequent hospitalizations (Barney, Griffiths, Jorm, & Christensen, 2006; Drapalski et al., 2013; Levy, Tsoy, Brodt, Petrosyan, & Malloy, 2015). It also negatively affects treatment-seeking behavior (Eisenberg, Downs, Golberstein, & Zivin, 2009) and treatment adherence (Livingston & Boyd, 2010). Finally, although a good therapeutic alliance is correlated with less severe symptoms (Strauss & Johnson, 2006), it is insufficient to improve the experience of self-stigma (Kondrat & Early, 2011).

Two psychometric tools are frequently used to assess self-stigma: the Internalized Stigma of Mental Illness scale (ISMI) (Ritsher, Otilingam, & Grajales, 2003; Ritsher & Phelan, 2004) and the Self-Stigma of Mental Illness scale (SSMI) (Corrigan, Watson, & Barr, 2006; Watson, et al., 2007). The ISMI consists of 29 items in five subscales: Alienation (six items), which reflects feeling devalued as a member of society; Stereotype Endorsement (seven items), which reflects agreement with negative stereotypes of mental illness; Discrimination Experience (five items), which reflects current mistreatment attributed to the biases of others; Social Withdrawal (six items), which reflects avoidance of others because of mental illness; and Stigma Resistance (five items), which enquires into the participant's perceived ability to deflect stigma. The items in the ISMI are answered on a 4-point Likert scale, "I strongly disagree" (1 point), "I disagree" (2 points), "I agree" (3 points) and "I strongly agree" (4 points). The items in the Stigma Resistance subscale are scored in reverse, because low scores on this subscale reveal decreased internalized stigma (increased stigma resistance). Because the goal was to have item content be applicable to all respondents and focused on the present, there are no items referring to specific types of relationships or concrete past episodes of experienced discrimination. The total ISMI score ranges from 29 to 116. A high ISMI score shows that the individual has high internalized stigma. The 29-item ISMI has an internal consistency reliability coefficient of alpha=0.90. The test-retest reliability coefficient is r=0.92 ($p<0.05$). The five subscales of the ISMI have the following levels of internal consistency and test-retest reliability, respectively: Alienation, 0.79 and 0.68; Stereotype Endorsement, 0.72 and 0.94; Discrimination Experience, 0.75 and 0.89; Social Withdrawal, 0.80 and 0.89; Stigma Resistance, 0.58 and 0.80. For interpretation purposes, the score can be categorized as follows (total ISMI score): 0–58.0: minimal and mild internalized stigma; 58.1–87.0: moderate internalized stigma; and 87.1–116.0: severe internalized stigma. The score can also be categorized as follows (mean total ISMI score): <2: minimal; 2–2.5: low, 2.5–3: moderate, and >3: strong. Finally, the

score can be based on the 2.5 cutoff point to determine the presence or absence self-stigma. The SSMI consists of 40 items, with 10 items representing each of the four constructs in the self-stigma model (Watson et al., 2007): stereotype awareness, stereotype agreement, stereotype application and self-concurrence, and harm to self-esteem. Participants are asked to respond on a 9-point agreement scale (where 9 equals "strongly agree") to four questions each about 10 specific stereotypes (e.g., Stereotype A: most persons with mental illness are to blame for their disorders):
1/ I think the public believes stereotype A (aware),
2/ I think I agree with stereotype A (agree),
3/ Because I have a mental illness I am stereotype A (apply), and
4/ I currently respect myself less because of stereotype A (harm).
The measure is divided into four subscales representing awareness, agreement, application, and harm. The higher the score, the more self-stigma is endorsed for each factor. Alphas for data collected here ranged from 0.82 to 0.91.

Three reviews of stigma in BD (Ellison, Mason, & Scior, 2015; Hawke, Parikh, & Michalak, 2013; Levy, et al., 2015) and one review of self-stigma in BD (Latalova et al., 2013) have been published; they concluded that the fight against stigma remains a fundamental objective of mental health programs. However, the number of publications on stigma in BD has considerably increased in the last decade. Thus, the aim of this review is to examine previous and new data with regard to self-stigma and BD, with the intent of ongoing research.

2. Method

This review is reported based on the PRISMA guidelines (Liberati et al., 2009; Moher, Liberati, Tetzlaff, Altman, & Group, 2009).

2.1. Eligibility criteria

We included studies published in academic journals that: 1/ Were either controlled trials (with a control group), uncontrolled pre- and post-intervention studies (without a control group), cross-sectional studies, qualitative studies, case-studies, or reviews; and 2/ Included people living with BD.

2.2. Search strategy

An electronic search was carried out during the last week of August 2020. Three academic databases – *PubMed, Embase,* and *PsycInfo* – were systematically searched. Search syntax was compiled using the related entry terms from MESH and relevant keywords. Boolean operators (AND, OR) were used to compile the search syntax. The search strategy used included: ((((("internalization"[All Fields] OR "internalizations"[All Fields]) OR "internalize"[All Fields]) OR "internalized"[All Fields]) OR "internalizes"[All Fields]) AND "stigma*"[All Fields]) OR "self stigma*"[All Fields]) AND (("bipolar disorder"[MeSH Terms] OR ("bipolar"[All Fields] AND "disorder"[All Fields])) OR "bipolar disorder"[All Fields]). We carried out the article search based on the aforementioned eligibility criteria. The articles were subsequently independently checked by a psychologist who works in the mood disorders unit at Geneva University Hospital for applicability. The reference lists of the included articles and relevant review articles were systematically reviewed to identify additional studies. Disputes were resolved through discussion until a consensus was reached.

2.3. Data extraction

For all the articles, the surname of the first author, year of publication, study design, sample size, mental health of study participants, and instruments used to assess self-stigma were extracted using predefined forms. Other more specific data were extracted, depending on the content of the selected articles.

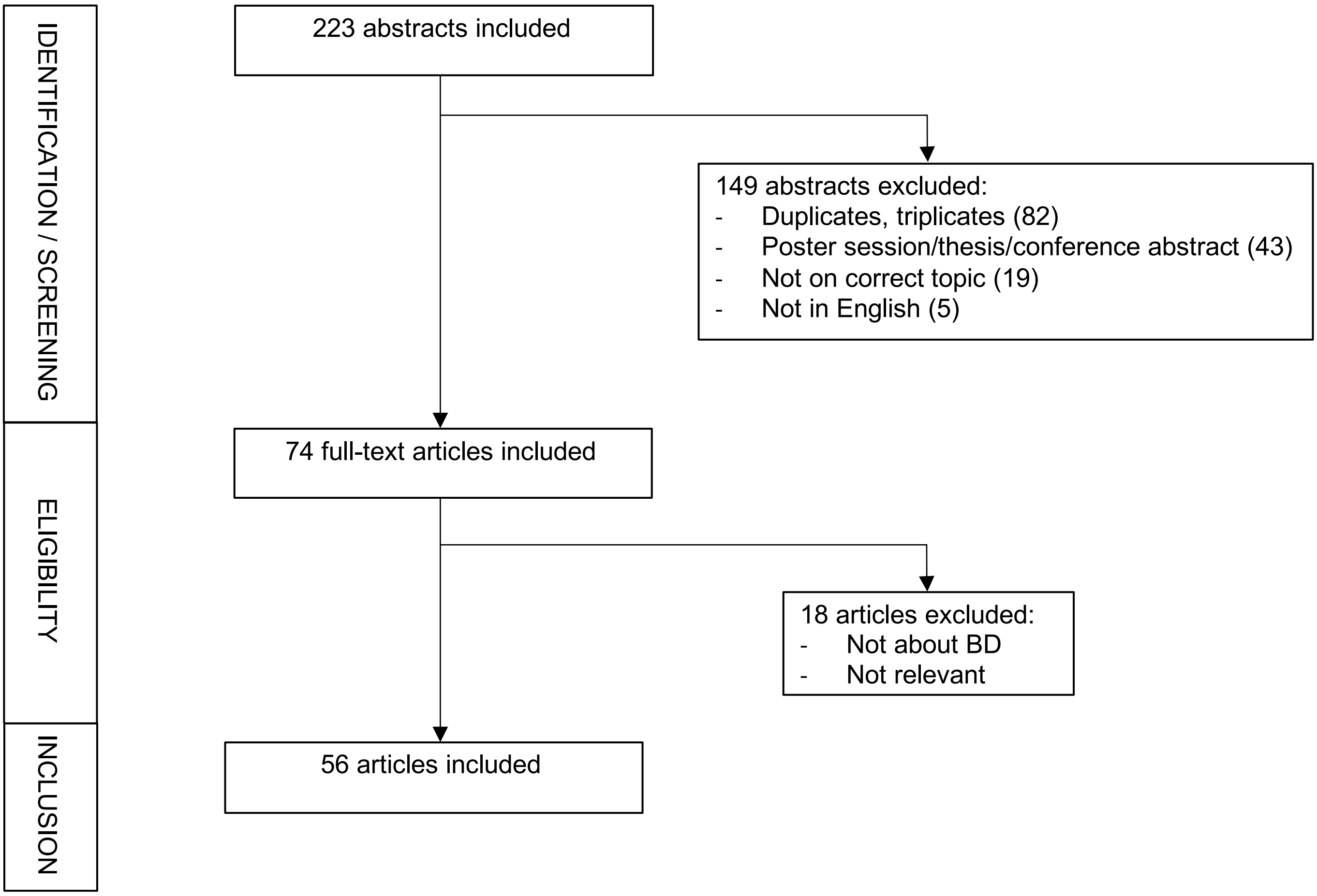
2.4. Data synthesis

We could not conduct a quantitative meta-analysis because of the heterogeneity of the studies included. A best-evidence synthesis was used to identify the key results and limitations of each study.

3. Results

The search strategy produced an initial total of 223 abstracts. Eighty-two abstracts were excluded because they were redundant: that is, they appeared in more than one database. Abstracts for poster sessions, theses, and conference proceedings were also excluded. After this selection, 74 articles met the criteria, and 56 of which covered the question of self-stigma in BD. The details of this search procedure are summarized in the PRISMA flowchart (Figure 1).

Figure 1. PRISMA flowchart.



Seven key themes emerged from this review: 1/ Comparison of self-stigma in BD and other mental illnesses, 2/ Sociocultural context and self-stigma in BD, 3/ Correlates and predictors of self-stigma in BD, 4/ Consequences of self-stigma in BD, 5/ Treatments of BD and self-stigma, 6/ Management of self-stigma in BD, and 7/ Self-stigma and recovery in BD. All the articles included are summarized in one or more of Tables 1 to 7.

3.1. Comparison of self-stigma in BD and other mental illnesses

Two studies compared self-stigma in BD and schizophrenia (SZ). Sarisoy et al. (2013) reported that 22 (18.5%) BD patients and 32 (29.4%) SZ patients suffered from self-stigma (mean total ISMI score>2.5). The difference was close to significance, with a greater score for participants with SZ (X^2=3.142; p=0.076). There was no difference between the two groups in terms of the alienation, stereotype endorsement, discrimination experience or social withdrawal subscales (p>0.05) or total ISMI score (mean score 2.10 ± 0.46 vs. 2.17 ± 0.51; t=−1.21; p>0.05). However, the stigma resistance score was significantly lower in the group with BD (mean score 2.38 ± 0.54 vs. 2.56 ± 0.62; t=−2.42; p=0.016). According to the authors, stigma resistance decreases in people with SZ because they are exposed to greater discrimination from society than individuals with BD. Karidi et al. (2015) reported that self-stigma was present in individuals with BD and SZ and differed significantly in its intensity: participants living with SZ had higher levels of self-stigma than participants living with BD. Moreover, individuals living with BD experienced self-stigma less, such that it did not affect their social life or overall functioning. Participants living with SZ adopted more intense self-stigmatizing attitudes, leading to social exclusion and a lower level of overall functioning.

Three studies compared self-stigma in BD, SZ, and major depressive disorder (MDD). One study aimed to identify clinical profiles characterized by diagnoses (BD, SZ, or MDD) and related to internalized stigma, self-esteem and satisfaction with social relationships (Oliveira, Esteves, & Carvalho, 2015). The authors reported four typologies of individuals. Typology 1 is composed of individuals with mood disorders who are mostly receiving professional care in outpatient psychiatric consultations. Overall, the participants with this typology showed satisfaction with their personal relationships, and self-stigma was not found to be pervasive in this group. Typology 2 is also characterized by the same clinical and treatment setting characteristics as typology 1, but these individuals have minimal to low levels of self-esteem, high levels of alienation, high discrimination experience and high social withdrawal. Typologies 3 and 4 are strongly associated with participants with SZ and characterized by dissatisfaction with social relationships, moderate levels of alienation, discrimination experience and social withdrawal and moderate to high stereotype endorsement. According to these authors, self-stigma is higher in people with SZ than people with MDD or BD and can have deleterious effects on relationships and quality of life. Ran et al. (2018) examined self-stigmatization in persons living with SZ, MDD and BD. The overwhelming majority (94.7%) of participants showed moderate to severe self-stigmatization (mild: 5.3%; moderate: 92.1%; severe: 2.6%), and there were no significant differences in mean ISMI scores according to gender, age, marital status or family income level among the three groups. However, participants with SZ had significantly higher total ISMI scores than those with BD (71.5 ± 8.4 and 68.5 ± 8.8; $p<0.05$, respectively), although they did not differ significantly from the MDD group. Furthermore, participants with BD had significantly higher scores for stigma resistance than those with SZ or MDD (13.7 ± 2.1, 12.5 ± 1.8, 12.2 ± 1.7; $p<0.001$, respectively). The authors explained these results in different ways: rejection experiences may be more prevalent in persons living with SZ, which may be related to illness identity; persons living with BD may have more positive self-images and higher self-esteem than persons living with SZ; in addition, persons living with BD may be less sensitive to experienced discrimination than persons living with SZ or MDD. Finally, Szcześniak et al. (2018) compared self-stigmatization in persons living with psychotic disorders, MDD and BD. The mean self-stigma score in the sample was 2.23 ± 0.5. Contrary to the studies previously cited, participants with MDD had significantly higher mean total ISMI scores than those with psychotic disorders (2.46 ± 0.6 and 2.19 ± 0.5; $p=0.39$, respectively) but they did not differ significantly from those with BD (2.39 ± 0.5). The authors claimed that this result can be explained by the effect of excessive depreciation of self-value as a human being in people suffering from MDD. There was no significant difference in self-stigmatization perception among the three groups according to gender, marital or employment status. However, an association with education level was observed in all three groups (vocational training: mean total ISMI score=2.51 ± 0.6 vs. higher education: mean total ISMI score=2.06 ± 0.5; Wilcoxon rank sum test; $p=0.02$). Data for the participants living with BD were not specifically discussed. The authors reported that the sample of participants with BD was small compared with the other two clinical groups. This may explain the lack of significant associations between participants living with BD and those living with psychotic disorders and MDD.

Chang et al. (2016) compared self-stigmatization in people with BD, SZ, MDD, or anxiety disorder (AD). Participants living with SZ, MDD or BD had higher self-stigma levels (>2.5) than participants living with AD according to the total ISMI score (42%, 21%, 14% and 1%; χ^2=14.368; p=0.002, respectively) and in all ISMI domains except Stigma Resistance (47%, 24%, 13% and 14%; χ^2=1.019; p=0.797, respectively). Self-stigma did not differ significantly between BD and SZ. The authors suggested that people with SZ and with BD face public stigma more than people with AD. Thus, they may experience more discrimination and prejudice than those with AD.

Grambal et al. (2016) compared self-stigmatization in patients with BD, SZ, borderline personality disorder (BPD), MDD, and AD. They reported a statistically significant difference between different diagnostic groups in total ISMI score: BPD: 71.15 ± 14.74, SZ: 63.20 ± 13.27, MDD: 64.09 ± 12.20, AD: 57.62 ± 15.85 and BD: 62.00 ± 14.21; p<0.005. The level of self-stigma was highest in participants with BPD and lowest in participants with AD. The ISMI scores of patients with BD and SZ were similar. According to the authors, the high score for level of self-stigma in patients living with BPD can be explained by the fact that maladaptive schemas, uncertain self-concept and self-defeating emotions in BPD have a similar content to self-stigma assertions and beliefs. The authors did not comment on the scores for the other diagnostic groups.

Pal et al. (2017) compared self-stigmatization in patients with BD, SZ and AD. The three groups differed significantly on total and subscale ISMI scores (2.25 ± 0.38, 2.74 ± 0.40 and 1.97 ± 0.37; F=32.827; p<0.001, respectively, for the mean total ISMI scores). According to the authors, the high score for self-stigma in patients living with SZ may be induced by the greater stigma attached to this disorder. Moreover, in that study, the authors assessed the components of self-stigmatization, especially for people living with BD. Their results showed that self-stigmatization is significantly correlated with monthly income (Spearman's r=−0.276; p<0.05); level of education (r=−0.437; p<0.01); socio-occupational functioning (r=–0.390; p<0.01); self-esteem (r=–0.688; p<0.01); participation (Spearman's r=0.342; p<0.01), and physical (r=–0.257; p<0.05), psychological (r=–0.390; p<0.01), and environmental (r=–0.337; p<0.05) quality of life. The authors mention a probable bidirectional relationship between self-stigmatization and socio-occupational functioning in particular: on the one hand, people living with BD may adapt their social behavior to avoid rejection, marginalization or discrimination, leading to dysfunction. On the other hand, loss of functioning may bring on embarrassment, shame and discrimination, which contributes to a high level of self-stigmatization.

More recently, Tanriverdi et al. (2020) assessed self-stigmatization in patients living with BD, SZ, MDD, substance abuse disorder (SUD) and AD. The mean self-stigma score in their sample was 2.59 ± 0.33.

In total, 10.6% of participants showed severe self-stigmatization, 48.4% showed moderate self-stigmatization, 37.4% showed mild self-stigmatization, and 3.7% showed minimal self-stigmatization. In terms of the mean total ISMI score, the highest score was obtained by participants living with SUD (2.75 ± 0.38), followed by those living with MDD (2.65 ± 0.38), SZ (2.54 ± 0.25), BD (2.52 ± 0.32) and AD (2.50 ± 0.24); the difference between the five groups was statistically significant ($p<0.05$). The authors did not comment specifically on the results for participants living with BD. However, they highlighted the necessity of using different intervention methods to combat and reduce self-stigma in populations with different psychiatric diagnoses.

Our team (Quenneville et al., 2020) explored the self-stigmatization experienced by subjects suffering from three different diagnoses: BD, attention-deficit/hyperactivity disorder (ADHD) and BPD. Our results showed a significant difference in total ISMI score between diagnostic groups, which was mainly explained by a higher level of stigmatization in the BPD group compared with the ADHD group and the BD group (2.56 ± 0.66, 2.01 ± 1.16, and 2.27 ± 0.50; $p=0.04$, respectively). The high level of overall self-stigmatization reported by people living with BPD is consistent with the findings of Grambal et al. (2016) above-mentioned. There is no significant difference between the ADHD and BD groups in terms of total ISMI score ($p=0.17$). However, the perceived discrimination and social withdrawal subscales discriminated between individuals living with BD and those living with ADHD; the former group had higher scores for perceived discrimination (1.95 ± 0.54 and 1.58 ± 0.65; $p=0.0002$) and social withdrawal (1.75 ± 0.75 and 2.25 ± 0.64; $p<0.0001$). Those subscales are also the ones associated with lower employment levels, which were found to be more prevalent in the BD diagnostic group (n=54; 78.3%) than in the ADHD group (n=38; 28.1%). We did not find association between ISMI subscales or total score and civil status, age, or number of children.

Finally, two large multicenter European studies compared self-stigma in different psychotic disorders. First, Brohan et al. (2011) assessed self-stigma in people living with MDD or BD. Nearly a quarter of the participants (21.7%) had self-stigma scores in the moderate or high category. Individuals with a diagnosis of MDD had significantly higher scores for self-stigma than those with a diagnosis of BD (mean score 2.11 vs. 1.94; $t=1.56$; $p=0.001$). The authors drew no conclusions from these results. Secondly, Krajewski et al. (2013) assessed correlates of self-stigma in 796 individuals with different psychiatric disorders (BD, MDD, SZ, and other unspecified diagnoses).There was a significant difference in mean ISMI score between the different groups (respectively SZ: 2.42, MDD: 2.31, BD: 2.07, and other: 2.287; $p<0.001$): participants diagnosed with BD had the lowest mean ISMI score, whereas participants diagnosed with psychosis had the highest. The authors drew no conclusions from these results.

Table 1. Comparison of self-stigma in BD and other mental illnesses.

Study	Design	Sample	Measure of self-stigma	Findings
Brohan et al. (2011)	Multicentric cross-sectional study	578 BD 604 MDD	ISMI	MDD group had significantly higher level of self-stigma than BD group.
Krajewski et al. (2013)	Multicentric cross-sectional study	89 BD 189 MDD 219 SZ 299 other diagnoses	ISMI	BD group had lowest mean ISMI score.
Sarisoy et al. (2013)	Cross-sectional study	119 BD 109 SZ	ISMI	No difference between the two groups on total ISMI scale; stigma resistance subscale significantly lower in BD group.
Oliveira et al. (2015)	Cross-sectional study	33 BD 81 MDD 147 SZ	ISMI	Self-stigma higher and had more negative impact in SZ than in BD or MDD groups.
Karidi et al. (2015)	Cross-sectional study	60 BD 60 SZ	Self Stigma Questionnaire (Karidi et al. 2010; 2004)	SZ group had higher level of self-stigma than BD group.
Chang et al. (2016)	Cross-sectional study	43 BD 161 SZ 98 MDD 45 AD	ISMI	BD and SZ groups had significantly higher levels of self-stigma than MDD and AD groups.
Grambal et al. (2016)	Cross-sectional study	30 BD 49 SZ 33 MDD 37 AD 35 BPD	ISMI	BPD group had highest level of self-stigma. No difference between BD and SZ groups.
Pal et al. (2017)	Cross-sectional study	60 BD 33 SZ 30 AD	ISMI	Three groups differed significantly on total and subscale ISMI scores.
Ran et al. (2018)	Cross-sectional study	39 BD 232 SZ 182 MDD	ISMI	SZ group had significantly higher total ISMI scores than BD group; no significant difference from MDD group.
Szcześniak et al. (2018)	Cross-sectional study	19 BD 51 SZ 44 MDD	ISMI	MDD group had highest levels of self-stigma.
Tanriverdi et al. (2020)	Cross-sectional study	63 BD 46 SZ 40 MDD 44 SUD 24 AD	ISMI	SUD group had highest levels of self-stigma, followed by MDD, SZ, BD, and AD groups.
Quenneville et al. (2020)	Cross-sectional study	69 BD 39 BPD 136 ADHD	ISMI	BPD group had higher levels of self-stigma than ADHD and BD groups.

3.2. Sociocultural context and self-stigma in BD

Two multicentric cross-sectional studies on the sociocultural context of self-stigma have been conducted in Europe. First, Brohan et al. (2011) explored self-stigma in patients with mood disorders across Europe. Thirteen countries were included: Belgium, Croatia, Estonia, Finland, Greece, Italy, Lithuania, Malta, Macedonia, Poland, Romania, Spain, and Sweden. The majority of participants (86.4%) reported minimal to low levels of self-stigma. Mean total self-stigma scores ranged from a low of 1.61 ± 0.45 in Sweden to a high of 2.36 ± 0.40 in Lithuania. Mean stigma resistance scores ranged from 2.26 ± 0.58 in Poland to 2.84 ± 0.61 in Finland. Empowerment scores ranged from 2.32 ± 0.45 in Croatia to 2.92 ± 0.45 in Sweden. Perceived discrimination scores ranged from 2.60 ± 0.54 in Sweden to 3.13 ± 0.57 in Greece. There was significant between-country variation on all four measures: self-stigma (F(12,1147)=24.02; p=0.001), stigma resistance (F(12,1154)=6.40; p=0.001), empowerment (F(12,1139)=15.75; p=0.001), and perceived discrimination (F(12,1149)=7.26; p=0.001). The authors did not comment on these results. Krajewski et al. (2013) explored stigma in participants with different psychiatric disorders in six countries: Croatia, Israel, Lithuania, Malta, Romania, and Sweden. In this sample, the mean total stigma score was 2.3 ± 0.5. The highest mean total ISMI score was found in Croatia (2.71 (2.10–3.08)), whereas the lowest score was found in Sweden (1.96 (1.58–2.33)), and the difference was significant (p<0.001). The authors suggested that public attitudes toward people with a psychiatric disorder are a potential source of self-stigmatization. No specific data for BD were presented.

Several studies have been conducted in East Asia. In a study conducted in Korea (Kim et al., 2015), the total ISMI score was 49.51 ± 9.32 for patients living with BD; there was no statistically significant difference from the scores for people with SZ and schizoaffective disorder. The authors observed that this score was relatively low compared with other studies. They explained this difference as resulting from the fact that they examined inpatients and not outpatients: during their hospitalization, patients are separated from the majority of social situations and may be less aware of self-stigma. The variables shown to be correlated with the ISMI included age (Spearman's r=0.171; p<0.05), education level (r=0.170; p<0.05), duration of illness (r=0.239; p<0.01), ratio of the duration of hospitalization to the duration of illness (r=–0.222; p<0.01), insight (r=0.227; p<0.01), self-esteem (r=–0.559; p<0.01), hopelessness (r=0.459; p<0.01), social support (r=–0.260; p<0.01) and social conflict (r=0.409; p<0.01). Chang et al. (2016) assessed self-stigma among people living with serious mental illness (SMI) and AD in Taiwan. Among people living with BD, 32.6% reported a high internalized stigma level (>2.5). In various subscales, 46.5% of participants reported social withdrawal, 44.2% reported alienation, and 34.9% reported discrimination experiences, followed by stereotype endorsement (30.2%) and stigma resistance (30.2%). Moreover, there were some significant correlations between internalized stigma, voluntary or compulsory hospitalization, and suicidal behavior. Interestingly, the authors observed that feelings of stigmatization resulted from educational and social welfare attitudes, the medical environment and related legislation. Furthermore, the media in Taiwan tend to use negative words to describe people with SMI, which indirectly increases their self-stigma. Recently, in a study conducted in rural China (Ran, et al., 2018), participants living with BD reported moderate internalized stigma (68.5

± 8.8). Unlike people living with SZ or MDD, demographic variables (gender, age, marital status, years of education, family income level, income earner) did not significantly contribute to self-stigma among people living with BD.

In recent years, self-stigma has been studied in India. In a study conducted at a tertiary care center among patients living with BD, Grover et al. (2016a) reported that the mean total ISMI score was 67.45 ± 11.77. They suggested that this high level of self-stigma might reflect the Indian context. For example, there are no social schemes for individuals with severe mental disorders. Moreover, family is involved in caring for patients with mental illnesses and family members make major treatment decisions. This reduced freedom to make decisions about their own treatment and future life can increase self-stigma. In a nationwide multicentric study, Grover et al. (2017) reported substantial internalized stigma (2.29 ± 0.47). Higher internalized stigma is associated with younger age (r=–0.185; p<0.001), younger age at onset (r=–0.131; p<0.05), shorter duration of illness (r=–0.215; p<0.001), shorter duration of treatment (Spearman's r=–0.215; p<0.001), lower severity of residual depressive symptoms (Spearman's r=–0.140; p<0.01) and higher severity of residual manic symptoms (Spearman's r=0.197; p<0.001). Higher internalized stigma is significantly reported by women (2.29 ± 0.40) and unemployed people (2.27 ± 0.39). According to the authors, the higher prevalence among females in the Indian context reflects the double vulnerability that mental illness imposes upon women, who are often socially discriminated against because of their gender. In 2017, a study assessed self-stigma and its impact on Indian outpatients (Pal, et al., 2017). For people living with BD, the mean total ISMI score was 2.25 ± 0.38. For BD participants, self-stigma was significantly correlated with self-esteem (r=–0.668; p<0.001); level of education (r=–0.437; p<0.001); monthly income (Spearman's r=–0.276; p<0.05); socio-occupational functioning (r=–0.469; p<0.001); and physical (r=–0.257; p<0.05), psychological (r=–0.390; p<0.01) and environmental (r=–0.337; p<0.01) quality of life.

In a study conducted in Ethiopia (Habtamu, Alem, Medhin, Fekadu, & Hanlon, 2018), participants reported minimal and mild internalized stigma (54.3 ± 15.8). However, the authors observed significant associations between symptom severity (r=1.02; 95% CI: 1.01, 1.03), self-stigma (r=1.01; 95% CI: 1.01, 1.02), two or more medication side effects (r=1.19; 95% CI: 1.08, 1.31) and functional impairment. This study confirmed that risk factors for functional impairment in people living with mental disorders in low- or middle-income countries are the same as in high-income countries. Unfortunately, these findings were not adjusted for diagnosis, and there are no specific data for BD.

In an initial Turkish study (Ustundag & Kesebir, 2013) conducted with only patients living with BD, self-stigma was observed in 46% of the sample. The participants with self-stigma had a significantly lower level of education (7.61 ± 3.84 years vs. 10.20 ± 4.40 years; t= 4.3; p=0.002) and more of them lived in rural regions (37.0% vs. 18.5%; X^2=7.844; p=0.038). There was no a significant difference in terms of gender, marital status, socioeconomic level, or social support between the participants with and without internalized stigmatization. Among the participants with self-stigma, the rate of seasonality (52.2%) and rapid cycling (19.6%) was higher than in the patients without internalized stigmatization (seasonality:

22.2% and rapid cycling: 1.9%; p=0.002 and p=0.005, respectively). Moreover, in the participants with and without internalized stigmatization, seasonality, rapid cycling, and functionality and well-being are observed to be predictors of internalized stigmatization (p=0.007, p=0.039, p=0.001, and p<0.001, respectively).

AlAteeq et al. (2018) explored the experience and impact of stigma in Saudi Arabians living with a mood disorder vs. Koreans and Canadians. In Saudi Arabia, they found that 56% of persons living with BD tried to hide their mental illness from others and to avoid situations that might lead to being stigmatized. The self-stigma scores were not significantly different between participants with BD and MDD (3.22 ± 2.36 and 3.42 ± 2.78, respectively), which suggests that both groups had similar types of stigma experiences. However, 73% of persons living with BD were involuntarily hospitalized in the year prior to the study (in comparison, only 3.6% of a Canadian sample had that experience; H. Lee, Milev, & Paik, 2015). The authors remind us that compulsory hospitalization is a factor that aggravates self-stigmatization, reducing empowerment and degrading quality of life. However, the impact on stigma was higher in a Canadian sample (38.20 ± 17.90; p=0.0001) than in the Saudi Arabian (16.33 ± 17.40) and Korean samples (19.10 ± 19.10) (p=0.379). According to the authors, these results can be explained by the greater family support and involvement found in Saudi Arabia and in Korea.

Table 2. Sociocultural context and self-stigma in BD.

Study	Design	Country	Sample	Measure of self-stigma	Key findings
Brohan et al. (2011)	Multicentric cross-sectional study	13 European countries	578 BD 604 MDD	ISMI	Significant between-country variations.
Krajewski et al. (2013)	Multicentric cross-sectional study	6 European countries	796 individuals with MD, including 89 with BD (11.2%)	ISMI	Significant between-country variations.
Üstündağ and Kesebir (2013)	Cross-sectional study	Turkey	100 BD	ISMI	Self-stigma was observed in 46% of the participants.
Kim et al. (2015)	Cross-sectional study	Korea	160 psychiatric inpatients, including 102 with BD (63.8%)	ISMI	Self-stigma was observed in 8.1% of the participants.
Chang et al. (2016)	Cross-sectional study	Taiwan	347 individuals, including 43 with BD (13.5%)	ISMI	Among BD group, 32.6% reported high self-stigma levels.
Grover et al. (2016a)	Cross-sectional study	India	185 BD	ISMI	High level of self-stigma.
Grover et al. (2017)	Multicentric cross-sectional study	India	1,403 individuals, including 344 with BD (24.5%)	ISMI	Higher level of self-stigma experienced during the early phase of illness and by women.
Pal et al. (2017)	Cross-sectional study	India	123 individuals, including 60 with BD (48.8%)	ISMI	BD, AD and SZ groups differed significantly on total and subscale ISMI scores.

Table 2. Sociocultural context and self-stigma in BD (continued).

Study	Design	Country	Sample	Measure of self-stigma	Key findings
AlAteeq et al. (2018)	Cross-sectional study	Saudi Arabia	93 individuals, including 50 with BD (53.8%)	Inventory of Stigmatizing Experiences (Stuart, Milev, & Koller, 2005)	Self-stigma scores did not differ significantly between BD and MDD groups. Negative impact of compulsory hospitalization.
Habtamu et al. (2018)	Cross-sectional study	Ethiopia	324 SMI, including 116 BD (35.8%)	ISMI	Participants reported minimal and mild self-stigma. Risk factors for functional impairment from low- or middle-income countries are the same as in high-income countries.
Ran et al. (2018)	Cross-sectional study	China	453 individuals, including 39 with BD (8.6%)	ISMI	Moderate and severe self-stigma observed in 94.7% of the participants.

3.3. Correlates and predictors of self-stigma in BD

Quinn et al. (2015) hypothesized that experiences of discrimination were related to self-stigma, and that this association was mediated by anticipated discrimination and anticipated social stigma. The most common types of discrimination reported by participants were not being hired for a job (26%), being hassled by the police (23%), being fired from a job (16%), and being denied medical treatment or receiving poorer treatment (13%). Moreover, experienced discrimination, anticipated discrimination, anticipated social stigma from others, and internalized stigma are significantly correlated with bivariate correlations of 0.24 ($p<0.01$), 0.50 ($p<0.01$), and 0.52 ($p<0.01$), respectively. Finally, experiences of discrimination have a direct effect on self-stigma (unstandardized regression coefficient $\beta=0.22$; $p<0.05$): as the amount of experienced discrimination increases, so does the level of self-stigma. Unfortunately, these results were not adjusted for the diagnosis, and there are no specific data on BD.

Bassirnia et al. (2015) evaluated the association between personality traits and self-stigma in persons living with BD. Externalizing personality traits include borderline, antisocial, histrionic, narcissistic, and paranoid personality traits, while internalizing personality traits include schizoid, schizotypal, dependent, and avoidant personality traits (Kendler et al., 2011). In this sample, the mean total ISMI score was 56.37 ± 13.70. First, scores for internalizing personality traits had a significant positive correlation with participants' self-stigma scores ($r=0.520$; $p<0.001$) but there was no correlation between the global externalizing personality trait score and the self-stigma score. In a multivariate regression analysis, internalizing personality trait score was found to be a significant predictor of self-stigma (r-square=0.70; $F=7.58$; $p=0.002$). Consequently, the authors recommend heightened vigilance and attention when persons living with BD present with internalizing personality traits.

Chan and Mak (2016) explored the mechanism underlying how attributions and cognitive and emotional representations of mental illness among people living with SMI impact their endorsement of self-stigma.

Attributions can be biological/physiological (i.e., heredity, neuro-abnormalities, etc.), psychosocial (i.e., negative outlook toward life, family problems, etc.), or cultural (i.e., possession by a ghost, etc.). Cognitive representations include controllability of illness, consequences of illness for one's life, identity, and timeline. The emotional representation is the emotional impact of the illness. Bio-physiological causes ($\beta=-0.21$; $p<0.05$), psychosocial causes ($\beta=-0.07$; $p<0.05$), and cultural beliefs ($\beta=0.04$; $p<0.05$) were not significantly associated with perceived controllability. Perceptions of mental illness as having lower controllability ($\beta=-0.12$; $p<0.01$), more negative consequences ($\beta=0.16$, $p<0.007$), greater symptom burden ($\beta=0.12$; $p<0.05$), and being highly distressing ($\beta=0.23$; $p<0.001$) were associated with a higher level of self-stigma. In other words, the perceived controllability of the illness was a protective factor against self-stigma. Unfortunately, these findings were not adjusted for the diagnosis, so there are no specific data on BD.

Dubreucq and Franck (2019) published a review to describe the neural and cognitive correlates of stigma and social rejection in individuals living with SMI. Nine (23.6%) of the 38 included papers reported directly on self-stigmatization and 244 people with SMI were included. The proportion of people with BD is unknown. Acute social rejection, low stigma resistance, and stereotype threat conditions led people with SMI to underperform in cognitive or social cognitive tasks and in social skills. Unfortunately, there are specific data for BD. Moreover, stigma was found to be associated with enhanced activation of the rostroventral medial prefrontal cortex and decreased activation of the amygdala, but these data were available only for people with SZ.

Table 3. Correlates and predictors of self-stigma in BD.

Study	Design	Sample	Correlates/predictors of self-stigma	Measure of self-stigma	Key findings
Quinn et al. (2015)	Cross-sectional study	105 SMI, including 30 BD (28.6%)	Lifetime discrimination scale (Kessler, Mickelson, & Williams, 1999) Anticipated stigma scale (Kessler, et al., 1999)	Three items adapted from Berger et al.'s (2001) stigma scale One item adapted from Link's (1987) devaluation-discrimination scale	More discrimination was related to increase anticipated discrimination, increased anticipated stigma, and greater self-stigma.
Bassirnia et al. (2015)	Cross-sectional study	112 BD	Millon Clinical Multiaxial Inventory-III (Chick, Martin, Nevels, & Cotton, 1994)	ISMI	Positive correlation between self-stigma and internalizing personality traits, but not externalizing traits.
Chan and Mak (2016)	Cross-sectional study	376 SMI, including 60 BD (16%)	Brief Illness Perception Questionnaire (Broadbent, Petrie, Main, & Weinman, 2006) Revised Illness Perception Questionnaire (Moss-Morris et al., 2002)	Self-Stigma Scale (Mak & Cheung, 2010; Wu, Chang, Chen, Wang, & Lin, 2015)	Positive correlation between self-stigma and controllability, consequences, and emotional concern of mental illness, but not cause, timeline, or identity.

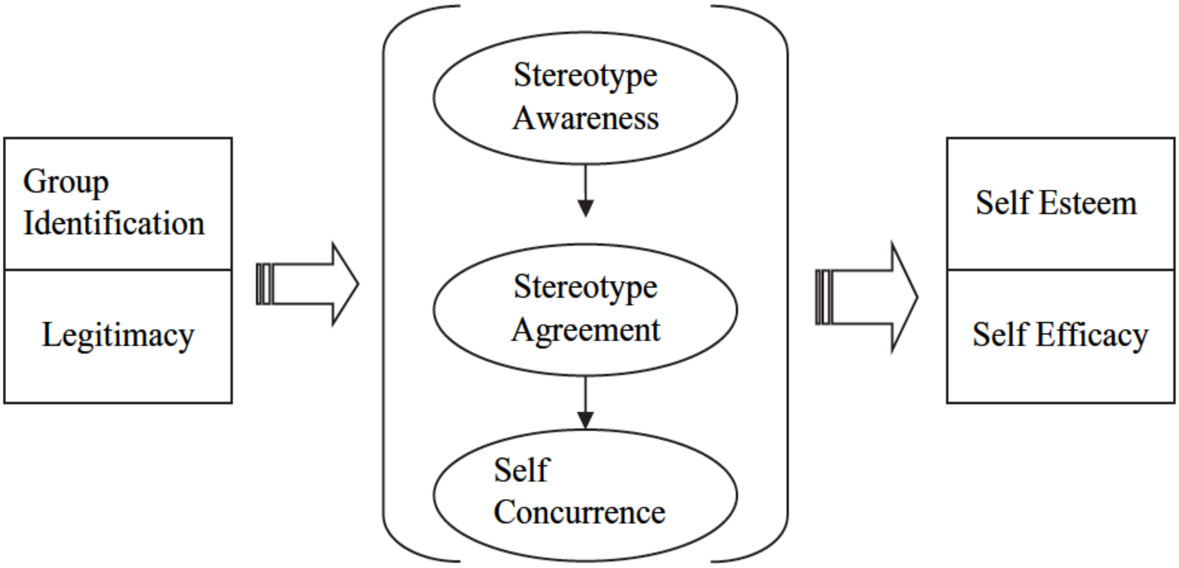
Table 3. Correlates and predictors of self-stigma in BD (continued).

Study	Design	Sample	Correlates/predictors of self-stigma	Measure of self-stigma	Key findings
Dubreucq and Franck (2019)	Review	244 SMI	Neural and cognitive factors	Implicit self-stigma Explicit self-stigma (Rusch, Corrigan, Todd, & Bodenhausen, 2010)	People with SMI under-performed in cognitive tasks when dealing with self-stigma.

3.4. Consequences of self-stigma in BD

Several studies have assessed self-stigma and self-esteem. First, Watson et al. (2007) described a theorical model of self-stigma and its consequences (Figure 2). Seventy-one individuals with a primary diagnosis of SZ, BD, or MDD were recruited for their study. The proportion of participants with BD in this sample is not specified.

Figure 2. Theoretical model of self-stigma.

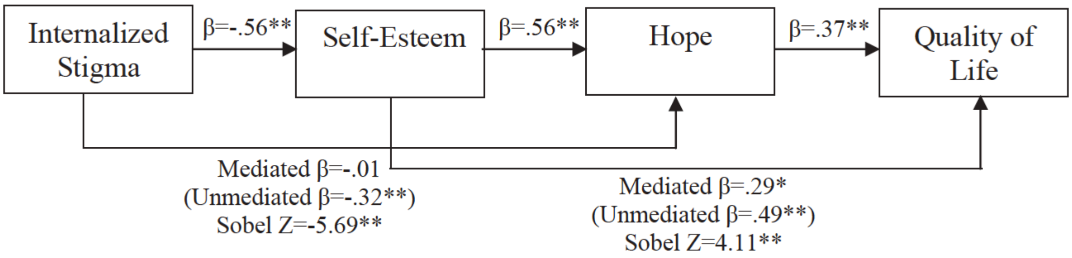


Published in “Watson, A. C., Corrigan, P., Larson, J. E., & Sells, M. (2007). Self-stigma in people with mental illness. *Schizophrenia bulletin*, *33*(6), 1312-1318.”

In that study, stereotype awareness was only correlated with perceived legitimacy (PL) (r=–0.276; p <0.05). Thus, the more aware of public stigma a person is, the less he or she perceives it as legitimate. Stereotype awareness was not significantly associated with stereotype agreement, stigma self-concurrence, self-esteem, or self-efficacy. Stereotype agreement was associated with self-concurrence (r=0.522; p<0.001), and self-concurrence was correlated with self-esteem (r=–0.410; p<0.001) and self-efficacy (r=–0.403; p<0.001). The authors also explored some statistical models with a series of regression analyses (stereotype agreement as a mediator of group identification (GI) and PL on stigma self-concurrence (SSC); SSC as a mediator of GI and PL on self-efficacy; and SSC as a mediator of GI and PL on self-esteem). Finally, they noted that self-stigma varied between individuals but GI, PL, and stereotype agreement may be important areas for therapeutic interventions. They did not present any specific data on BD.

Aydemir and Akkaya (2011) assessed the association of social anxiety with self-stigmatization and self-esteem specifically in people living with BD. Self-esteem was found to be negatively associated with stigmatization (r=−0.746). Social anxiety was positively associated with self-esteem (r=0.494) and negatively associated with stigmatization (r=−0.381). Similarly, Drapalski et al. (2013) reported that self-stigma was associated with lower self-esteem (r=–0.56; p<0.001), and lower self-efficacy (r=–0.63; p<0.001). Self-stigma is not significantly associated with diagnosis. Finally, Mashiach-Eizenberg et al. (2013) presented a model in which internalized stigma affects self-esteem, self-esteem affects hope, and hope affects quality of life (QoL) among persons with SMI (Figure 3). Their data suggested that the impact of self-stigma upon hope and QoL may be closely related to levels of self-esteem. Unfortunately, the proportion of participants living with BD in their sample was not specified.

Figure 3. Results for linear regression analyses and Sobel tests for mediation hypotheses.



*p<0.01; **p<0.001

Published in "Mashiach-Eizenberg, M., Hasson-Ohayon, I., Yanos, P. T., Lysaker, P. H., & Roe, D. (2013). Internalized stigma and quality of life among persons with severe mental illness: The mediating roles of self-esteem and hope. *Psychiatry research*, *208*(1), 15-20. "

Many authors suggest that, to reduce social anxiety in people living with BD, therapeutic and social interventions to improve self-esteem and reduce concerns about self-stigmatization should be implemented.

Døssing et al. (2015) investigated self-compassion and self-stigmatization in persons living with BD. Among participants with BD, the mean total ISMI score was 1.59 ± 0.38. The patients with BD were found to have significantly lower self-compassion than controls (t=−4.39; p=0.000). However, no significant link between total self-compassion and self-stigmatization was found in this group (r=–0.28;

p>0.05). Moreover, there were no significant link between subscales of the self-compassion scale (Self-Kindness vs. Self-Judgment, Common Humanity vs. Isolation, and Mindfulness vs. Over-Identification). Self-stigmatization can affect interactions in medical settings. Rüsch et al. (2009) measured self-stigma as a baseline predictor of service use over six months. Seventy-five individuals living with SMI were included, the majority of whom had BD. High self-stigma at baseline predicted psychiatric hospitalization (β =0.08; p=0.009), independent of perceived stigma and psychopathology. According to the authors, high self-stigma could be associated with reduced willingness or ability to seek help, possibly leading to decreased coping resources and increased psychiatric hospitalization. Diagnoses were not significant predictors (p>0.40).

Some studies have explored the impact of self-stigmatization on social functioning. Cerit et al. (2012) found that variables that have a significant correlation with functioning are severity of depression (r=–0.491; p<0.001), self-stigmatization (r=–0.524; p<0.001), and perceived social support (r=0.383; p<0.001). Moreover, in the regression models, self-stigmatization was predicted by years of education, number of hospitalizations, and depression severity. Finally, the authors suggested that loss of functioning may lead to embarrassment and discrimination, which contributes to a high level of self-stigma. Thus, the relationship between self-stigma and social functioning seems to be bidirectional. Au et al. (2019) explored the impact of self-stigmatization on functioning in remitted BD. Six specific areas of functioning were assessed: autonomy, occupational functioning, cognitive functioning, financial issues, interpersonal relationships, and leisure time. In their study, functioning score was associated with scores on the stereotype agreement, self-concurrence and harm to self-esteem subscales of the SSMI (Spearman's r=0.307; p=.001; Spearman's r=0.348; p=.0001; and Spearman's r=0.351; p=.0001, respectively). The stereotype awareness component of the SSMI scale was not associated with functioning. Moreover, the stereotype agreement, self-concurrence and harm to self-esteem subscale scores were significantly predicted by level of functioning (β=0.280; p=0.003; β=0.325; p=0.000; β=0.346; p=0.000, respectively). On the other hand, only harm to self-esteem, which is the final stage of self-stigma, predicted the level of functioning (β=0.306; p=0.001). More recently, a study was conducted among euthymic patients living with BD to explore the role of self-stigma in social withdrawal (Pascual-Sanchez, Jenaro, & Montes, 2020). Their analysis showed that, taken together, stereotype endorsement, discrimination experience and control over illness, as measured by the ISMI, explained 80.4% of the variability in social withdrawal (p<0.001). The variable with the highest explanatory power was stereotype endorsement (62.9% of the variability; p<0.01), followed by discrimination experience (12.5% of the variability; p<0.01) and control over illness (4.9% of the variability; p<0.05). No differences (p>0.05) were found regarding gender in any of the variables tested as predictors. The authors highlight the necessity of promoting specific interventions targeting self-stigmatization for patients living with BD. In their view, if self-stigmatization can be prevented from progressing, the loss of daily functioning might be reduced.

More specifically, Corrigan et al. (2012) explored how self-stigmatization can affect work in people with SMI. They explored work via the following questions:

1/ Have you worked in the past three months?
2/ Have you worked in the past year?
3/ Have you ever worked?

The authors reported that self-stigma reflected greater effects on working in the past three months or year than on ever working. In particular, the stereotype self-application and harm to self-esteem subscales were significantly correlated with working in the past three months (r=–0.190; p<0.05; r=–0.215; p<0.05, respectively) and in the past year (r=–0.225; p<0.05; r=–.310; p<0.001, respectively). There was no correlation between stereotype awareness or stereotype agreement and work. Unfortunately, there are no specific data on BD.

Interestingly, Sarisoy et al. (2013) assessed the impact of self-stigma on intimate relations. Relational satisfaction scores were lower (Z=–2.790; p=0.005) and fear of relationship/relational anxiety and relational monitoring scores were higher (respectively, Z=–2.590; p=0.010 and Z=–3.699; p=0.000) in BD group members with self-stigmatization than those without. Thus, self-stigmatization negatively affects intimate relations, and individuals experience less satisfaction and happiness from these relations. The authors suggest that impaired intimate relations should be targeted by psychotherapeutic procedures.

Finally, as we have already mentioned with the model proposed by Mashiach-Eizenberg et al. (2013), self-stigma can impact QoL. Interestingly, Rüsch et al. (2010) separated explicit and implicit self-stigma to explore each kind's impact on QoL. Explicit self-stigma is measured by self-report (10-item harm to self-esteem subscale of Corrigan's SSMI (Corrigan, et al., 2006). Implicit self-stigma was conceptualized as a combination of a negative implicit attitude toward mental illness and low implicit self-esteem. The authors used a computer-based reaction-time measure, the Brief Implicit Association Test (Sriram & Greenwald, 2009) to assess this factor. Lower levels of explicit and implicit self-stigma independently predicted higher QoL (respectively, β =–0.48; p<0.001 and (β =–0.23; p=0.02). Diagnoses were not significant predictors (p=0.46). Similarly, Üstündağ and Kesebir (2013) reported a strong inverse correlation between self-stigmatization and QoL, for all the ISMI subscales, except resistance to stigmatization, and the WHOQOL-BREF subscales (Fidaner, Elbi, Fidaner, Eser, & Eser, 1999, based on ; The WHOQOL Group, 1998). Moreover, the psychological health dimension of QoL is a predictor of self-stigmatization (β=2.1; p<0.001) in BD patients. Recently, Post et al. (2018) examined whether self-stigma was correlated with QoL specifically in patients diagnosed with BD-I. In a multiple linear regression analysis, self-stigmatization emerged as a predictor of lower QoL in the areas of work/occupation (β=–0.49; p<0.001), leisure time (β=–0.313; p<0.05), and mental health (β=–0.338; p<0.05). Interestingly, Post et al. reported a relatively low mean ISMI score (1.44 ± 2.84). According to the authors, this finding can be explained by the relatively long mean duration of illness (11.6 years ± 10.2), which enabled the patients to develop coping strategies.

Table 4. Consequences of self-stigma in BD.

Study	Design	Sample	Measure of self-stigma	Measure of consequences	Findings
Watson et al. (2007)	Cross-sectional study	71 SMI	SSMI	Rosenberg Self-Esteem Scale (1965) Sherer and Adams Self-Efficacy Scale (1983)	Significant association between stereotype agreement and self-concurrence. Significant association between self-concurrence and both self-esteem and self-efficacy.
Rüsch et al. (2009)	Prospective study	75 SMI, Including 27 BD (36%)	SSMI	Mental health service use	Self-stigma may increase the risk of psychiatric hospitalization.
Rüsch et al. (2010)	Cross-sectional study	85 SMI, including 30 BD (35%)	SSMI Brief Implicit Association Test (Sriram & Greenwald, 2009)	Lehman's Quality of Life Interview (1988)	Greater implicit and explicit self-stigma independently predicted lower QoL.
Aydemir and Akkaya (2011)	Cross-sectional study	150 BD	Sense of stigmatization subscale of BD Functioning Questionnaire (Aydemir et al., 2007)	Liebowitz Social Anxiety Scale (1987) Rosenberg Self-Esteem Scale (1965)	Significant association between self-stigma and both self-esteem and social anxiety.
Cerit et al. (2012)	Cross-sectional study	80 BD	ISMI	Bipolar Disorder Functioning Questionnaire (Aydemir, et al., 2007)	Self-stigma was a predictor of functioning.
Corrigan et al. (2012)	Cross-sectional study	85 SMI, including 30 BD (35.3%)	SSMI	Social Adjustment Scale (Weissman, Olfson, Gameroff, Feder, & Fuentes, 2001)	Only the later stages of self-stigma were correlated with current work.
Sarisoy et al. (2013)	Cross-sectional study	119 BD 109 SZ	ISMI	Multidimensional Relationship Questionnaire (Snell, Schicke, & Arbeiter, 2002)	Fear of relationship scores were higher in BD with self-stigma, while relational satisfaction scores were lower.
Drapalski et al. (2013)	Cross-sectional study	100 SMI, including 34 BD (34%)	ISMI	Sherer and Adams Self-Efficacy Scale (1983; 1982) Rosenberg Self-Esteem Scale (1965)	Greater self-stigma was associated with lower levels of self-esteem and self-efficacy.

Table 4. Consequences of self-stigma in BD (continued).

Study	Design	Sample	Measure of self-stigma	Measure of consequences	Findings
Mashiach-Eizenberg et al. (2013)	Cross-sectional study	179 SMI, BD not specified	ISMI	Rosenberg Self-Esteem Scale (1965) Adult Dispositional Hope scale (Snyder et al., 1991) Manchester Assessment of Quality of Life (Priebe, Huxley, Knight, & Evans, 1999)	Self-esteem mediated the relation between self-stigma and hope.
Üstündağ and Kesebir (2013)	Cross-sectional study	100 BD	ISMI	WHO Quality of Life Scale, abbreviated version (Fidaner, et al., 1999, based on ; The WHOQOL Group, 1998)	Significant inverse correlation between self-stigma and QoL. WHOQOL-BREF psychological health subscale score predicted self-stigma.
Døssing et al. (2015)	Naturalistic case-control study	30 BD 30 controls	ISMI	Self-Compassion Scale (Neff, 2003)	No significant association.
Post et al. (2018)	Naturalistic case-control study	60 BD 77 controls	ISMI	Berliner Lebensqualitätsprofil (Priebe, Gruyters, Heinze, Hoffmann, & Jakel, 1995)	BD participants had significantly lower QoL than healthy controls.
Au et al. (2019)	Cross-sectional study	115 BD	SSMI	Functional Assessment Short Test (Rosa et al., 2007)	Functioning was significantly associated with the SSMI harm to self-esteem subscale.
Pascual-Sanchez et al. (2020)	Cross-sectional study	49 BD	ISMI	Social withdrawal (ISMI dimension)	Stereotype endorsement, discrimination experience and control over illness together explained 80.4% of the variability in social withdrawal.

3.5. Treatments of BD and self-stigma

Several studies have assessed self-stigma and treatment adherence among patients living with BD. First, Lee et al. (2011) reported that non-adherent BD patients endorsed significantly greater anxiety and self-stigma than adherent BD patients ($p<0.05$). The authors also assessed the quality of the therapeutic alliance between doctor and patient. Interestingly, both alliance and self-stigma were found to be related to patient depression ($r=0.47$; $p=0.003$ and $r=0.43$; $p=0.011$, respectively). Stigma predicted depression ($p=0.008$), whereas poor alliance did not ($p=0.114$), indicating that self-stigma was the driving force behind these associations. Üstündağ and Kesebir (2013) investigated the effect of self-stigma on treatment adherence among patients living with BD. Compliance was assessed with four subscales: perceived doctor-patient relationship, beliefs about mood stabilizers, preserved autonomy in general, and preserved autonomy in mood stabilizer dosage. Higher total scores are indicative of more positive attitudes and beliefs about mood stabilizers. Resistance to stigmatization was weakly associated with perceived doctor-patient relationship (r=0.26; p=0.01) and beliefs about mood stabilizers (r=0.25; p=0.01). Autonomy in treatment had a strong relationship with alienation (r=–0.37; p<0.001), stereotype endorsement (r=0.47; p<0.001), perceived discrimination (r=0.46; p<0.001), and social withdrawal (r=0.54; p<0.001), all of which are components of internalized stigmatization. According to the authors, these findings indicate the importance of a good physician-patient relationship and therapeutic cooperation in combating stigmatization. For patients who are opposed to external control, it seems essential to give them an active role in their own treatment. Similarly, Hajda et al. (2015) reported that total ISMI score among people living with BD was significantly negatively correlated (Pearson's r=0.4889; p<0.005) with current adherence to treatment. However, there were no statistically significant differences in ISMI scores and current adherence among patients who had discontinued medication in the past and the patients who had not (t=0.2150; df=27; n.s.). Moreover, gender, employment, partnership, and family history were not significantly associated with current adherence. Only level of education was associated with adherence to treatment (t=2.883; df=27; p<0.01).

A review (Ragesh, Hamza, & Chaturvedi, 2016) including 19 studies explored the sociocultural determinants of treatment adherence in BD. Three studies specifically assessed the relationship between stigma (global stigma, self-stigma, perceived stigma) and adherence. According to the authors, stigma plays a major role in determining non-adherence to treatment. They suggested that programs to deal with non-adherence should address issues related to stigma. Kamaradova et al. (2016) examined levels of self-stigma and their relationship to treatment adherence and discontinuation of prescribed medications in psychiatric outpatients. The mean level of self-stigma was 61.08 ± 14.54 for the entire sample, without statistically significant differences in mean ISMI scores between individual diagnostic categories. Lower self-stigma levels were linked to better adherence (p<0.0001). At the same time, participants who had voluntarily discontinued their medication in the past showed significantly higher self-stigma levels (63.62 ± 14.5) than those who had not (59.46 ± 14.35). Moreover, there was no statistically significant difference in the frequency of discontinuation of treatment between the diagnostic categories. However, the highest percentage of voluntary discontinuation of treatment was observed among participants with BD. Howland et al. (2016) explored the correlates of internalized stigma among individuals living with BD whose adherence to their medications was poor. Common medications included quetiapine, aripiprazole, and valproate. The majority of participants were taking only one medication (66.1%), while 33.9% were taking two or more. The mean total ISMI score was 2.22 ± 0.48; ad using the midpoint of 2.5 to categorize internalized stigma, 26.0% of study participants experienced high internalized stigma. Non-adherence did not significantly increase as internalized stigma increased (mean Tablets Routine Questionnaire score, from minimal to strong self-stigma: 51.3 ± 28.8, 55.5 ± 25.6, 61.2 ± 27.9, and 44.4 ± 20.7). However, in a qualitative analysis, one participant's comment about stopping their medication to hide their illness from their partner may represent a component of self-stigma. Finally, Smilowitz et al. (2020) assessed the link between medication adherence and self-stigma in older and younger adults living with BD. One hundred and eighty-four participants were included in this study: 40 (21.7%) were older adults (age ≥55 years) and 144 (78.3%) were younger adults (age <55 years). There were no statistically significant differences between older and younger participants at the baseline in past-week (37.25 ± 29.06 vs. 42.97 ± 30.81; p=0.34) and past-month (38.48 ± 26.31 vs. 40.84 ± 27.51; p=0.66) adherence with BD medications. The mean number of psychiatric medications was 1.55 ± 0.78 for older participants and 3 ± 1.95 for younger participants, with no significant difference (p=0.86). However, older adults had significantly lower self-stigmatization scores than younger adults (61.95 ± 12.67 vs. 69.27 ± 11.54; p=0.001). The authors hypothesized that older adults living with BD had learned to develop coping skills. Thus, their capacity for recovery can be deployed even in later life. The authors did not find a link between medication adherence and self-stigmatization.

Boyd et al. (2015) explored the links between the internalized stigma and "medication stigma", determined by three dimensions: disclosure ("I am comfortable telling others that I take psychiatric medication"), feeling judged ("Others judge me for taking psychiatric medication"), and shame ("I am embarrassed about the psychiatric medication that I am taking"). The authors also explored the perceived helpfulness of medication. The mean ISMI score is 2.19 ± 0.52. A quarter of participants had a score >2.5. Medication stigma was associated with higher internalized stigma of mental illness (r=0.46; p<0.001). In particular, younger age was associated with feeling judged (r=–0.18; p<0.05) but not with disclosure, shame, or the summary score. Furthermore, medication stigma was not associated with duration of taking medication or gender. Finally, the perceived helpfulness of medication was higher among participants with lower internalized stigma (r=–0.26; p<0.005). Nevertheless, we should specify that these results were not adjusted for the diagnosis.

The adverse effects of psychotropic drugs can also have an impact on self-stigma. Habtamu et al. (2018) reported that 74.5% of individuals taking medication reported one or more side effects of the drug. The authors observed significant associations between self-stigma (r=1.01; 95% CI: 1.01, 1.02), two or more medication side effects (r=1.19; 95% CI: 1.08, 1.31) and functional impairment. McEvoy et al. (2019) investigated the impact of tardive dyskinesia (TD) induced by antipsychotic drugs on self-stigmatization, especially on the social withdrawal. TD status and severity were determined with two items on the clinician screening form: "Does the patient currently have TD?" and "Rate the severity of the patient's TD." Half of the participants with BD (n=69; 48.3%) had TD, with a significant impact on their QoL (vs. general population norm: mental component: –12.72, p<0.001; physical component: –4.43, p<0.001; physical functioning: –6.32, p<0.001. Participants without TD engaged in significantly less social withdrawal than participants with TD (SW-ISMI score: 2.3 vs. 2.5, p<0.001). Moreover, the authors noted that similar observations were obtained when they examined participants with BD, MDD, and SZ separately, without reporting their numerical results. They concluded that psychiatrists should look for treatments for TD that can be administered in conjunction with antipsychotic drugs.

Table 5. Treatments of BD and self-stigma.

Study	Design	Sample	Measure of self-stigma	Measure of adherence / perceptions	Findings
Lee et al. (2011)	Cross-sectional study	43 BD	ISMI	Poor Alliance Scale (A. M. Lee, et al., 2011)	Non-adherent patients reported significantly greater self-stigma.
Üstündağ and Kesebir (2013)	Cross-sectional study	100 BD	ISMI	Mood Stabilizer Compliance Questionnaire (MSQC; Demyttenaere et al., 2004)	Strong correlation between ISMI score and MSQC scores.
Hajda et al. (2015)	Cross-sectional study	33 BD	ISMI	Drug Attitude Inventory (Hogan, Awad, & Eastwood, 1983)	Self-stigma was significantly correlated with non-adherence.
Boyd et al. (2015)	Cross-sectional study	159 psychiatric outpatients, including 28 with BD (17.6%)	ISMI-10 (Boyd, Otilingam, & Deforge, 2014)	Three questions about Medication stigma One question about Perceived helpfulness of medication	Medication stigma was frequent, although most participants saw their treatment as helpful.
Ragesh et al. (2016)	Review	BD	ISMI Individual interviews	Drug Attitude Inventory (Hogan, et al., 1983) Individual interviews	Stigma played a major role in non-adherence.
Kamaradova et al. (2016)	Cross-sectional study	332 psychiatric outpatients, including 14 with BD (4.2%)	ISMI	Drug Attitude Inventory (Hogan, et al., 1983)	Self-stigma was a factor that negatively influenced adherence and significantly contributed to voluntary discontinuation of treatment.
Howland et al. (2016)	Mixed-method study	115 BD	ISMI	Tablets Routine Questionnaire (Scott & Pope, 2002) Individual interviews	No significant association between medication adherence and self-stigma.
Habtamu et al. (2018)	Cross-sectional study	324 SMI, including 116 BD (35.8%)	ISMI	Antipsychotic Side Effects Checklist (Susser et al., 2000)	Significant associations between self-stigma, two or more medication side effects and functional impairment.
McEvoy et al. (2019)	Cross-sectional study	416 SMI, including 143 BD (34.4%)	Social withdrawal (ISMI dimension)	Two questions on tardive dyskinesia	Presence of TD significantly associated with social withdrawal.
Smilowitz et al. (2020)	Cross-sectional study	184 BD	ISMI	Tablets Routine Questionnaire (Adams & Scott, 2000)	No significant association between medication adherence and self-stigma.

3.6. Management of self-stigma in BD

Several interventions intended to reduce self-stigmatization have been described in the literature. Cabassa et al. (2013) explored how 16 individuals with SMI and a history of substance abuse envisioned their recovery. The authors described a Photovoice intervention: community members used the power of photographs and narratives to communicate their experiences and engage in a critical dialogue (Wang & Burris, 1997). For this Photovoice intervention, participants met for six consecutive weeks. In session 1, participants completed a self-report survey and received information about Photovoice interventions. Sessions 2 to 6 consisted of individual photo-elicitation interviews and group dialogues. The authors concluded that life achievements help reduce participants' self-stigma, increase self-efficacy, and instill hope. There were no specific findings about participants living with BD.

In 2014, a first study assessed the effectiveness of a psychoeducation program to reduce self-stigmatization in patients living with BD (Cuhadar & Cam, 2014). In that program, participants learned to manage self-stigmatization by drawing on cognitive restructuring techniques and the support and experiences of other participants. More specifically, the content of the psychoeducation sessions was:
1/ Meeting patients and providing information about the research,
2/ and 3/ Providing information about the disease and the disease process,
4/ Providing information about stigmatization,
5/ Getting to know internalized stigmatization,
6/ Teaching skills for coping with internalized stigmatization, and
7/ Closing session.
Before the psychoeducation (first week), significant correlations were found between the self-stigma score and the functionality subscale scores for emotional functioning (Spearman's r=–0.461; p=0.001), mental functioning (Spearman's r=–0.472; p=0.001), feeling of stigmatization (Spearman's r=0.422; p=0.003), relationship with friends (Spearman's r=–0.403; p=0.005), participation in social activities (Spearman's r=–0.435; p=0.002), and taking initiative and using one's potential (Spearman's r=–0.330; p=0.024). After the psychoeducation (seventh week), self-stigmatization subscale scores for alienation (t=3.644; p=0.001), approval of stereotypes (t=4.479; p=0.000), social withdrawal (t=4.190; p=0.000), and total self-stigmatization (t=5.821; p=0.000) were significantly reduced for the intervention group. Moreover, perceived discrimination was significantly reduced for both the control group (t=2.328; p=0.030) and the intervention group (t=3.743; p=0.001). However, there was no significant difference in the subscale score for resistance against stigmatization after psychoeducation for the control group (t=1.590; p=0.126) and the intervention group (t=1.886; p=0.072).

Hippman et al. (2016) assessed the effects of genetic counseling (GC) on self-stigmatization. GC is "the process of helping people understand and adapt to the medical, psychological and familial implications of genetic contributions to disease" (National Society of Genetic Counselors' Definition Task et al., 2006). Participants were randomized in three groups: GC, educational booklet (EB) and waiting list (WL). The findings showed that there were no significant interaction terms, and no differences between groups (GC/EB vs. WL) for any ISMI subscale or the total ISMI score (all unadjusted p>0.05). The authors explain these results by the lack of statistical power (small sample size). Moreover, they mention that systematic evaluations of GC are rare in BD.

Lucksted et al. (2017) tested the Ending Self-Stigma (ESS) psychoeducational intervention. ESS consists of nine weekly manual-assisted group sessions, based on psychoeducation, CBT and recovery principles. On the SSMI, ESS participants showed statistically larger reductions from baseline to post-intervention than treatment as usual (TAU) participants on the stereotype agreement (effect size (ES)=–0.312; p=0.006) and self-concurrence (ES=–0.0299; p=0.004) subscales of the SSMI scale but not on the awareness or harm to self-esteem subscales. On the ISMI-29 scale, ESS participants showed significant but small improvements over TAU participants on alienation (ES=–0.0185; p=0.041) and stigma resistance (ES=–0.0266; p=0.021) but not on stereotype endorsement, discrimination, or social withdrawal, nor on the total score. At the six-month follow-up, there were no significant differences between EES participants and TAU participants.

More recently, Chan et al. (2019) published a pilot study to analyze the impact of a mindfulness-based intervention (MBI) on self-stigma and recovery in patients living with BD. A randomized controlled trial (RCT) was conducted to compare a group that received a brief MBI and a control group on the WL. The MBI took place over four weekly sessions of 120 minutes each. The findings show a small effect size (d=0.29). We are currently awaiting the publication of the results of the full study.

In an original study, Moraleda et al. (2019) assessed whether participation in a regular mental health football league, *Ligasame*, would impact levels of self-stigma among people with SMI. *Ligasame* is a regular indoor football league promoting mental health that was created in the Community of Madrid 15 years ago. In *Ligasame,* the sporting activities are coordinated by mental health professionals. It is structured based on the individual needs of each participant to improve different aspects of life (e.g., autonomy, self-esteem, responsibility, etc.), and geared toward psychiatric rehabilitation. In the study sample, 40% had voluntarily participated in *Ligasame* for at least one year and 60% had not. No significant correlation was found between participants' diagnosis and level of self-stigma. Similarly, no significant correlation was found between participants' age and level of self-stigma. Statistically significant differences were found with respect to participation in *Ligasame*: specifically, higher scores in assumption of stereotype or self-stigma (F=6.588; p=0.012), stigma resistance (F=7.031; p=0.009), and the mean total ISMI score (F=5.831; p=0.017). In contrast to the other programs mentioned, the authors noted that participation in *Ligasame* is not limited to people with SMI, meaning that people without disorders may also access the program. The direct contact between people with and without mental illness allows them to establish an authentic, normalized relationship, eradicating ignorance and incorrect beliefs.

Tsang et al. (2016) published a systematic review and meta-analysis about therapeutic interventions for self-stigmatization of SMI, including people living with BD. Fourteen articles were selected for systematic review and five for meta-analysis. Just one study, which was discussed above (Cuhadar & Cam, 2014), included only participants living with BD. Nine studies reported significant self-stigma reduction. Seven studies had follow-up periods but only two showed sustainable effects for one to three months. The findings of the meta-analysis revealed the beneficial effects of the psychoeducation component in internalized stigma reduction when compared with TAU (r=–0.40; CI 95%: –0.64, –0.16; p=0.001). For the other programs to reduce self-stigma, the results were inconsistent or not statistically significant. Thus, the authors highlighted the role of psychoeducation to fight self-stigma.

Table 6. Management of self-stigma in BD.

Study	Design	Sample	Measure of self-stigma	Strategies for reduction of self-stigma	Findings
Cabassa et al. (2013)	Qualitative study	16 psychiatric outpatients, including 5 with BD (31.2%)	Individual interviews and group dialogue	Photovoice	Reduction of participants' self-stigma.
Çuhadar and Çam (2014)	Controlled experimental study	47 BD	ISMI	Group psychoeducation	Significant positive effects on self-stigma levels.
Hippman et al. (2016)	RCT	120 SMI, including 83 BD (69.2%)	ISMI	GC	No significant differences between groups.
Tsang et al. (2016)	Review and meta-analysis	SMI, including BD	ISMI Short-form SSMI (Corrigan et al., 2015) Chinese SSMI (Fung, Tsang, & Cheung, 2011) Link Perceived Stigma Questionnaire (McCay et al., 2007) Japanese version of Social Distance Scale (Uchino, Maeda, & Uchimura, 2012).	Coming Out Proud GC Psychoeducation program Self-stigma reduction program ESS Vocational rehabilitation Psychotherapy group Photovoice Narrative Enhancement and Cognitive Therapy Recover- oriented day clinic treatment CBT	Beneficial effects of psychoeducation.
Lucksted et al. (2017)	RCT	268 SMI, including 70 BD (27.1%)	SSMI ISMI	ESS	Significantly decreased scores on the stereotype agreement and self-concurrence subscales of the SSMI, and significantly improved scores on the alienation and stigma resistance subscales of the ISMI in ESS group.
Chan et al. (2019)	Pilot study	20 BD	ISMI	Brief MBI	Small effect size in favor of mindfulness.
Moraleda et al. (2019)	Pilot study	108 SMI, including 10 with BD (9.3%)	ISMI	*Ligasame*	Significantly improved scores on two subscales of the ISMI in *Ligasame* group.

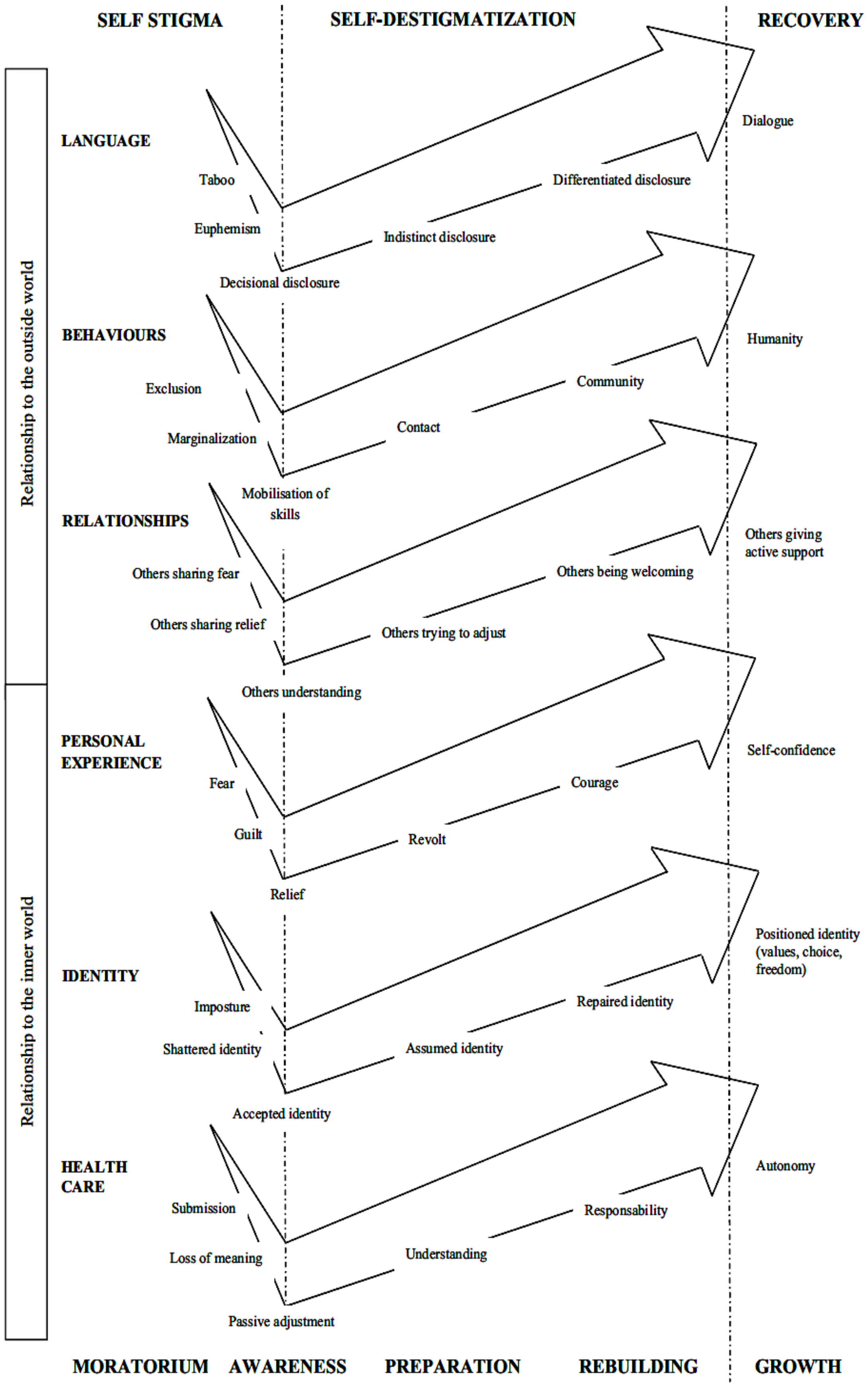
3.7. Self-stigma and recovery in BD

Drapalski et al. (2013) assessed the effects of self-stigmatization on the recovery orientation of people living with an SMI. In their study, self-stigma was not significantly associated with diagnosis. They reported that a higher level of self-stigmatization was associated with poorer recovery orientation (r=–0.54; p≤0.001). All ISMI subscales were significantly correlated with recovery orientation, especially stigma resistance (r=0.48; p<0.001). Similarly, Chan and Mak (2016) reported that a higher level of self-stigma was associated with poorer clinical recovery (including depression and functioning, substance abuse, emotional lability, etc.) (β=–0.50; p<0.001) and personal recovery (β=–0.42; p<0.001). Moreover, they observed that self-stigmatization explained 25.3% and 17.4% of the variances in clinical and personal recovery, respectively. In addition, significant indirect effects were found of emotional representations of mental illness (i.e., “How much does your illness affect you emotionally?”) on clinical and personal recovery via self-stigmatization (β=0.024; 95% CI: –0.041, –0.009 and β=–0.019; 95% CI: –0.033, –0.007, respectively). In the same sample, Zhang et al. (2017) reported that a higher level of self-stigma was associated with poorer life satisfaction (r=0.45; p<0.01), recovery assessments (r=–0.35; p<0.01), and recovery markers (r=–0.39; p<0.01). Moreover, the authors noted that the indirect effect of perceived primal threat on recovery through self-stigma was significant (β=–0.05; p=<0.01). They suggested that people who evaluated their mental illness as threatening to basic needs were more likely to report self-stigmatization, which is associated with poorer recovery.

Types of coping can affect self-stigma and recovery. Grover et al. (2016b) assessed the impact of self-stigma and religious coping on recovery among people living with BD. In their sample, the mean total ISMI score was 67.45 ± 11.77. There was a significant negative correlation between all the domains of stigma assessed on the ISMI and recovery on the Recovery Assessment Scale (Corrigan & Phelan, 2004), indicating that greater self-stigma is associated with a poorer recovery (r=–0.573; p<0.001). By contrast, there was a significant positive correlation between positive religious coping and recovery (r=0.172; p<0.05). According to the authors, clinicians should be sensitive to the religious beliefs and practices of individuals living with BD. Au et al. (2019) examined how stigma coping predicts self-stigma in remitted BD and assessed four types of types of coping: secrecy, withdrawal, education, and acceptance. The secrecy and withdrawal subscales of the Stigma Coping Orientation Scale (SCOS) (Link, Struening, Neese-todd, Asmussen, & Phelan, 2002) were associated with the self-concurrence component of the SSMI (Spearman’s r=–0.266; p=0.004 and Spearman’s r=–0.322; p=0.0001, respectively). Only the withdrawal subscale of the SCOS was associated with the self-esteem component of the SSMI (r=–0.342; p=0.0001). There was no correlation between coping by education and by acceptance and self-stigma. Secrecy affected the earlier self-stigmatization stage (stereotype agreement), whereas withdrawal affected the later stages (self-concurrence and harm to self-esteem). The authors suggest that the incorporation of a coping strategy modification (both secrecy and withdrawal) in self-stigma reduction programs might improve the outcome of BD.

Four qualitative studies examined the process of self-stigma and recovery orientation. Michalak et al. (2011) reported on the qualitative theme “Moving beyond internalized stigma,” which describes individuals’ reflections on no longer feeling self-stigma toward their own mental illness. According to the authors, individuals with BD do not always passively undergo stigma but they can progress to the point of actively managing their illness and mitigating self-stigma. Similarly, our team (Richard-Lepouriel, Favre, Jermann, & Aubry, 2020) described a new six-dimension process called the “self-destigmatization process” (SDP), a personal and interrelational process that deconstructs self-stigmatization and fosters the creation of human individuality. Six themes were extracted: language, behaviors, relationships, personal experience, identity, and health care. Each theme comprises codes distributed in a step-by-step order, forming an overall evolutionary process. The process begins with the experience of self-stigmatization and develops toward self-destigmatization (Figure 4). A similar type of process is described in the five stages (moratorium, awareness, preparation, rebuilding, and growth) of the recovery-oriented growth process (Andresen, Oades, & Caputi, 2003). Larkings et al. (2019) explored individuals’ causal beliefs about their illness and the impact on the treatment process. More specifically, in their view, discussion of patients’ causal beliefs may contribute to their recovery (e.g., help symptom management/relapse prevention, reduce self-stigma, increase acceptance and understanding of mental illness). Finally, a recent and original study explored the experiences of people vlogging about SMI on online social media (Sangeorzan, Andriopoulou, & Livanou, 2019). The authors conducted a systematic search on YouTube using the following search items: “schizophrenia,” “bipolar disorder,” “major depressive disorder” and “schizoaffective disorder.” Ultimately, 30 videos uploaded by 28 different individuals were analyzed. The authors reported that fighting stigma by promoting disclosure, providing educational content and positive role modeling was a recurrent theme in the videos. Moreover, the importance of engaging in meaningful work and the impact of receiving positive feedback from viewers contributed to the recovery of people vlogging about SMI. Finally, the authors suggest that professionals who support vlogging can help promote a form of self-therapy and social support and increase the quality of self-management.

Figure 4. Self-destigmatization process (SDP).



Published in "Richard-Lepouriel, H., Favre, S., Jermann, F., & Aubry, J. M. (2020). Self-destigmatization process? Experiences of persons living with bipolar disorder: a qualitative study. *Community mental health journal*, 1-10."

Finally, disclosure is a particularly important issue related to self-stigmatization and recovery. In this systematic review, we found three studies that addressed this problem. First, Michalak et al. (2011) described the concept of "judicious disclosure." This concept is an informal process to assess whether individuals living with BD should disclose information about their disease, in what context, for what purpose, and to whom. Moreover, the authors highlighted potential positive features of judicious disclosure: positive feelings, being a source of support, gateway to wellness, being empowering, etc. Secondly, Corrigan et al. (2016) examined predictors and consequences of disclosure for reducing self-stigmatization. Participants in that study reported being out about their mental illness (n=79; 74.5%) or not out (n=27; 25.5%). The benefits of being out (BBOs) and reasons for staying in (RSIs) were explored. Self-stigma was associated with both BBOs and RSIs. BBOs were associated with the earlier stages of self-stigma (being aware of and agreeing with stereotypes), whereas RSIs were associated with the later stages (personal application leading to harm related to lower self-esteem). Thus, self-stigma might motivate people to come out when self-stigma is less personally aversive, but when self-stigma leads to personal application and harm, it may cause someone to stay in the closet. There were no specific findings or considerations for people living with BD in that study. Finally, in our qualitative study (Richard-Lepouriel, et al., 2020), we explored the implications of disclosure and an individual's decision to speak out and expose himself or herself. We demonstrated that disclosure is not a dichotomous issue but a process with different stages (taboo, euphemism, decisional disclosure, indistinct disclosure, differentiated disclosure, and dialogue). The final stage, dialogue, describes how talking about one's illness opens up new relational fields. Others no longer judge but seek counseling or support from the person living with BD.

Table 7. Self-stigma and recovery in BD.

Study	Design	Sample	Measure of self-stigma	Measure of recovery	Findings
Michalak et al. (2011)	Qualitative study	32 BD	Individual interviews	Individual interviews	Self-stigma was a factor affecting ability to self-manage BD.
Drapalski et al. (2013)	Cross-sectional study	100 SMI, including 34 BD (34.0%)	ISMI	Mental Health Recovery Measure (Young & Bullock, 2003)	Greater self-stigma was significantly associated with lower levels of recovery orientation.
Corrigan et al. (2016)	Cross-sectional study	106 SMI, including 44 BD (41.7%)	SSMI	Coming Out with Mental Illness Scale (Corrigan, et al., 2010)	BBOs were significantly associated with lower self-stigma.

Table 7. Self-stigma and recovery in BD (continued).

Study	Design	Sample	Measure of self-stigma	Measure of recovery	Findings
Chan and Mak (2016)	Cross-sectional study	376 psychiatric outpatients, including 60 BD (15.6%)	Self-Stigma Scale (Mak & Cheung, 2010; Wu, et al., 2015)	24-item Behavior and Symptom Identification Scale (Eisen, Normand, Belanger, Spiro, & Esch, 2004) Recovery Assessment Scale (Corrigan & Phelan, 2004)	Self-stigma was negatively associated with clinical and personal recovery.
Grover et al. (2016b)	Cross-sectional study	185 BD	ISMI	Recovery Assessment Scale (Corrigan & Phelan, 2004)	Greater self-stigma was associated with poorer recovery.
Zhang et al. (2017)	Cross-sectional study	376 psychiatric outpatients, including 60 BD (15.6%)	Self-Stigma Scale (Mak & Cheung, 2010; Wu, et al., 2015)	Test Life Satisfaction Scale (Test, Greenberg, Long, Brekke, & Burke, 2005) Recovery Markers Questionnaire (Ridgway & Press, 2004) Recovery Assessment Scale (Corrigan & Phelan, 2004)	Perceived primal threat was positively associated with self-stigma, which was negatively related to recovery.
Au et al. (2019)	Cross-sectional study	115 BD	SSMI	Stigma Coping Orientation Scale (Link, et al., 2002)	Coping by secrecy was associated with stereotype agreement, while coping by withdrawal was associated with self-concurrence and harm to self-esteem.
Larkings et al. (2019)	Qualitative study	23 individuals with MD, including 3 BD (11.5%)	Individual semi-structured interviews	Individual semi-structured interviews	Causes help individuals with MD make sense of their illness and increase recovery.
Sangeorzan et al. (2019)	Qualitative study	28 SMI, including 14 BD (50.0%)	Video uploaded analyses	Video uploaded analyses	Vlogging about mental illness could reduce self-stigma.
Richard-Lepouriel et al. (2020)	Qualitative study	22 BD	Individual interviews	Individual interviews	Description of new six-dimension process called the "self-destigmatization process."

4. Discussion

Seven key themes emerged from this review: 1/ Comparison of self-stigma in BD and other mental illnesses, 2/ Sociocultural context and self-stigma, 3/ Correlates and predictors of self-stigma, 4/ Consequences of self-stigma, 5/ Treatments and self-sigma, 6/ Management of self-stigma, and 7/ Self-stigma and recovery in BD. Only two themes are shared with the review by Latalova et al. (2013): impact of stigma upon functioning and impact on the treatment of BD. Thus, we can see that the major new data generated in the last decade have mainly concerned the management of self-stigma.

In our review, we observed that studies comparing levels of self-stigma between BD and other mental illnesses show very heterogeneous results, in particular for SZ and MDD. First, self-stigma was initially described among people living with SZ or other psychotic disorders, probably because SZ is considered one of the most highly stigmatized psychiatric disorders due to an array of negative stereotypes associated with it (Gerlinger et al., 2013; Schulze & Angermeyer, 2003). For example, 28% of people think individuals living with BD are violent or dangerous, compared with 54% for SZ, and 32% of people think individuals living with BD have behavioral problems, compared with 86% for SZ (Stip, Caron, & Mancini-Marïe, 2006). These representations may be influenced by a biased media portrayal describing people living with SZ as dangerous, unpredictable and antisocial (Corrigan et al., 2005; Klin & Lemish, 2008). At the same time, media coverage of BD has increased over the last two decades, with TV programs, TV series, and celebrity disclosures. The promulgation by the media of the notion of BD has substantially increased awareness of the diagnosis among the public (Angermeyer, Carta, Holzinger, & Matschinger, 2018). Contrary to SZ, media coverage of BD seems have positive effects: BD has been associated with literacy and creativity (D. Chan & Sireling, 2010), sometimes even with a glamorous image (Moncrieff, 2014). However, in this review we observed high levels of self-stigma in BD, sometimes similar to the levels of self-stigma in SZ (Chang, et al., 2016; Grambal, et al., 2016; Sarisoy, et al., 2013), and sometimes lower (Karidi, et al., 2015; Krajewski, et al., 2013; Pal, et al., 2017; Ran, et al., 2018). While the role of the media in disseminating information about mental illness is important (Ross, Morgan, Jorm, & Reavley, 2019), it remains unclear to what extent individuals living with BD are stigmatized by the public or the degree to which any negative attitudes are internalized. The links between media and self-stigma are complex and require further research.

The majority of the studies comparing self-stigma in people with BD and MDD show that people living with MDD have higher self-stigma levels than people with BD (Brohan, et al., 2011; Krajewski, et al., 2013; Ran, et al., 2018; Szczesniak, et al., 2018; Tanriverdi, et al., 2020). These findings might be explained by the beliefs that people have about their disease. Forgeard et al. (2016) assessed positive beliefs about mental illness (PBMIs) among individuals living with mental illness. PBMIs refer to perceptions of positive attributes individuals may identify in their mental illness, such as beneficial consequences, enhanced creativity or cognition, or growth through adversity. Forgeard et al. reported that people living with BD had higher levels of PBMIs, while people living with MDD have lower levels. One of the most common PBMIs about BD is creativity (Johnson et al., 2012). Across many decades of research, biographical studies and group studies of artists and writers have revealed an overrepresentation of cases of BD (Z. Chen & Xiao, 2020; Holm-Hadulla & Koutsoukou-Argyraki, 2017; Koutsantoni, 2012; Martin, 2006; Wills, 2003). Moreover, in a family study of 300,000 individuals with SMI conducted in Sweden, individuals with BD and healthy siblings of people with BD were overrepresented in creative professions, while neither individuals with MDD nor their relatives differed from controls regarding creative professions (Kyaga et al., 2011). A recent study suggested that creativity and BD share a certain genetic vulnerability (Greenwood, 2020). In addition to creativity, four other positive psychological traits are associated with BD: spirituality, empathy, realism, and resilience (Galvez, Thommi, & Ghaemi, 2011). Moreover, in the general population, BD is associated with positive beliefs, such as creativity and intelligence, and positive emotional reactions, such as compassion, and elicits a low desire for social distance (Ellison, et al., 2015). The stereotypes of dangerousness and dependency are approved to a lesser extent, although there is still some agreement with these beliefs (Ellison, et al., 2015). These positive data about perceptions concerning BD may help decrease self-stigma in people living with this disease.

In our review, only a few studies addressed the culture-specific aspects of experience of self-stigma. Three culture-specific elements emerged from our review: being a woman, implantation and organization of social welfare, and family role. First, gender differences can be culture-specific. In India, higher prevalence and increased severity of self-stigma are found among females (Grover, et al., 2017). According to Grover et al., these findings reflect the double distress that mental illness triggers in females, who are often socially discriminated against because of their gender, and show the need for gender-sensitive stigma intervention programs in India. In some other countries, though, there is no association between self-stigma and gender (Ellison, et al., 2015; Livingston & Boyd, 2010). Second, social welfare systems can cause harm and contribute to self-stigma. In India, there are no specific welfare systems for individuals with SMI. They have to compete with individuals with physical disabilities and they are rarely employed as they are considered to be disruptive and unpredictable (Grover, et al., 2016a). In Taiwan, a welfare system exists but it is described as labeling, stereotyping, exercising power, and increasing self-stigmatization (Chang, et al., 2016; C. H. Chen & Shu, 2012). However, this observation can really be extended to the whole world. For example, in the US, people who depend on welfare dependent are considered as the “undeserving poor” (Hansen, Bourgois, & Drucker, 2014). In the UK, a new functional checklist to assess people living with mental health issues is associated with an increase in suicides, mental health problems and prescribing of antidepressants (Barr et al., 2016). On the other hand, a welfare system can be a powerful tool for promoting mental health if it is based on the following principles: 1/ First, do no harm, 2/ Simplify processes and introduce easements, 3/ Train assessors in mental illness, 4/ Introduce an unconditional component to welfare payments, and 5/ Adopt a “mental health in all policies” approach (Senior, Caan, & Gamsu, 2020). Third, families can be either a source of support or a limitation. In India, families care for people living with SMI and family members are able to make major treatment decisions. Thus, individuals with SMI may feel less freedom to make decisions about their own treatment, health, relationships, and future life, and these feelings can increase self-stigma (Grover, et al., 2016a). Conversely, families, for example in Saudi Arabia and Korea, can support members living with SMI, prevent them from being alone, and serve as a “driving force” to seek medical treatment (AlAteeq, et al., 2018). However, the role of families is not dichotomous: either a support or a limitation. Family members can also feel stigmatized, and this can have a strong impact, including reduced social support, social withdrawal, and negative effects on health (Hawke, et al., 2013). Finally, we were unable to assess relationships between public stigma and self-stigma in our review, although many studies conducted around the world have described public stigma in BD (Alosaimi et al., 2019; Durand-Zaleski, Scott, Rouillon, & Leboyer, 2012; Ellison, et al., 2015; Li & He, 2020; Ruiz et al., 2012). Future studies could explore national or cultural differences in the development of self-stigma, not limited to situational and personality indicators.

Our review found some heterogenous results regarding the factors associated with self-stigma in BD. First, the overwhelming majority of studies suggest a lack of correlation between sociodemographic variables and self-stigma, as previously described in the literature (Ellison, et al., 2015; Livingston & Boyd, 2010). Just one study found a positive association with years of education (Cerit, et al., 2012). There is a positive correlation between self-stigma and internalizing personality traits but not externalizing traits (Bassirnia, et al., 2015). A recent study assessed personality traits and self-stigma in people living with SZ (Vrbova, Prasko, Holubova, Slepecky, & Ociskova, 2018): positive traits such as self-directedness (being purposeful, resourceful, and hopeful) and cooperativeness (being helpful, agreeable, and loving) were negatively associated with self-stigma. This dimensional approach, and not a merely categorial or symptomatic approach, could be interesting to better identify patients who are vulnerable to self-stigma and target them for interventions.

Unsurprisingly, there are many studies exploring the consequences of self-stigma. These consequences are numerous and negative: low self-esteem, low self-efficacy, hopelessness, social anxiety, social withdrawal, poverty of relationships, low functioning, and finally poor quality of life, as previously described in reviews (Hawke, et al., 2013; Latalova, et al., 2013; Levy, et al., 2015; Livingston & Boyd, 2010). These consequences substantially alter the recovery process for individuals with SMI and the development of other meaningful roles that enable them to live a satisfying life (Drapalski, et al., 2013; Spaniol, Wewiorski, Gagne, & Anthony, 2002). These findings highlight the necessity of raising clinicians' awareness of patients' self-stigma, so they can become allies and to offer more active management (Nieweglowski, Qin, Paniagua, & Corrigan, 2020).

As we saw in our review, the links between treatment and self-stigmatization are close and can be broken down into two aspects: side effects of medication and treatment adherence. Some people living with BD experience significant and visible side effects of medication: weight gain, somnolence, akathisia, tremors, extrapyramidal syndrome, etc. These effects themselves are very stigmatizing and add an extra burden to the disease, as summarized by the concept of "medication stigma" (Boyd, et al., 2015). Moreover, the more side effects there are, the more the level of self-stigma increases (Yen et al., 2009). Somewhat provocatively, Schulze (2007) reported that psychiatrists potentially contribute to creating and perpetuating the stigma of mental illness, including using treatments that produce side effects. Without going so far, clinicians must consider the negative influences of self-stigma and adverse effects of medication. Recently, Dell'Osso et al. (2020) reminded readers of the need to discuss potential side effects and mechanisms to cope with them. The second relevant finding is that the greater the self-stigma, the poorer the adherence to medication. Individuals living with BD are often described as demonstrating poor adherence and discontinuation of prescribed medications, with negative outcomes such as relapses and/or hospitalization, increased demand for mental health services, and increased service costs (Jawad, Watson, Haddad, Talbot, & McAllister-Williams, 2018). Non-adherence rates of 10% to 60% (median 40%) are reported for individuals living with BD (Lingam & Scott, 2002; Scott & Pope, 2002). More recently, a study reported that the majority of individuals living with BD (63%) are non-adherent to treatment (Miasso, do Carmo, & Tirapelli, 2012). Many factors influence poor adherence to medications (patient variables, illness variables, side effects of medication, therapeutic alliance, etc.) and sociocultural factors are probably the least understood (Ragesh, et al., 2016). One of the important factors that can significantly affect adherence to treatment is perceived self-stigmatization. Individuals with intense feelings of self-stigma tend not to believe that their mental condition will improve and feel shame and a negative self-concept (Lysaker, et al., 2007). Consequently, it seems essential to evaluate the patient's representations of his or her medication, to cope with the side effects of medication, and thus to increase treatment adherence.

Some interventions intended to reduce self-stigmatization are being described in the literature and multiple psychotherapies have been developed in the last decade (Alonso, Guillen, & Munoz, 2019; Mittal, Sullivan, Chekuri, Allee, & Corrigan, 2012; Tsang, et al., 2016; Yanos, Lucksted, Drapalski, Roe, & Lysaker, 2015). The interventions can be grouped as follows: psychoeducational interventions on self-stigma; CBT interventions – mainly cognitive restructuring techniques; interventions focusing on the disclosure of mental illness; and multicomponent interventions that combine several of these techniques. Most of these studies have obtained a reduction in self-stigma with small to moderate effect sizes. Nonetheless, most of the studies reviewed have significant limitations, such as small sample size, lack of randomization, or no control group; most of them are unique and not directly comparable; and none have been replicated. A meta-analysis of five studies (Tsang, et al., 2016) showed that there is a small to moderate significant effect of therapeutic interventions and suggested that psychoeducation has a favorable effect. Another meta-analysis included five RCTs assessing interventions to reduce self-stigma (Buchter & Messer, 2017). These interventions differ in their content and intensity but share elements of psychoeducation and CBT techniques in common. An emphasis on experiences, motivation and empowerment is predominant in most approaches. Büchter and Messer concluded that there is insufficient evidence on the effectiveness of anti-self-stigma interventions. In addition, most studies report only immediate post-intervention outcomes and do not measure any follow-up outcomes to assess the sustainability of the effect; there is a clear need for studies with longer-term follow-up (Thornicroft et al., 2016). Considering the clear association with the progression of SMI, evidence of the effectiveness of interventions targeting self-stigmatization is still sparse. We observe that most interventions involved individuals living with SZ or psychotic spectrum disorders and paid little attention to self-stigmatization related to other psychiatric disorders (Armijo et al., 2013; Mittal, et al., 2012). In our review, we found only one study that evaluated a program specifically designed for people living with BD (Cuhadar & Cam, 2014). It is interesting to note that dealing with stigma now appears in some international guidelines for the treatment of BD (Yatham, et al., 2018). Although the interventions have not yet been sufficiently evaluated, clinicians themselves can have an impact on patients' self-stigma. Negative attitudes and behaviors by a clinician (i.e., being given insufficient information about one's condition or treatment options, being treated in a paternalistic manner, etc.), lack of awareness, therapeutic pessimism, lack of skills, burnout and compassion fatigue have been identified as exacerbating patients' self-stigma (Henderson et al., 2014; Knaak, Mantler, & Szeto, 2017). However, clinicians can also act as destigmatizers of mental illnesses and people living with them. Schulze (2007) described four steps that clinicians should take to be credible agents of destigmatization: 1/ Increasing awareness of stigmatizing aspects of clinical practice, 2/ Meaningful user and family involvement, 3/ Recognition of challenging stigma and discrimination as an inherent part of the profession, and 4/ Campaigning for adequate resources for treatment and research, other professional interests and fighting self-stigma. Suto (2012) reported that individuals living with BD want to work with health professionals who apply a psychosocial rehabilitation approach and implement personal strategies to ease the burden of self-stigma in their lives.

Finally, it is unclear whether self-stigma should be considered pathology by pathology or for mental illnesses as a whole. In our review, a minority of studies included only individuals living with BD and none of these studies explained why they were only interested in BD. Of course, societal representations and beliefs about mental diseases may differ, as may the representations that individuals have of their own illness. Nevertheless, the intensity of self-stigma, the factors, including sociocultural context, associated with self-stigma, and its consequences and management do not seem to be fundamentally different among SMIs. It is difficult to determine whether this approach can be explained by the absence of a phenomenological difference between pathologies or by the overly great standardization of our measurement tools. We also lack standardized studies and RCTs to establish the effectiveness of anti-stigma programs. Moreover, more work is needed to learn how these interventions can best be delivered within different contexts and cultures.

5. Conclusion

To sum up, this review has revealed that people living with BD are highly self-stigmatized, and that this self-stigma has critical repercussions on their lives. Some interventions intended to reduce self-stigmatization have been developed in the last decade but evidence of their effectiveness is still sparse. Future work is required to establish valid strategies to fight self-stigma. Finally, clinicians need to be more aware of and attentive to the assessment of self-stigma and the empowerment of people who experience self-stigma in their daily clinical practice.

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