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Self-stigma in schizoprenia – consequences and management

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Abstract

BACKGROUND: Schizophrenia is a severe mental illness that significantly disrupts a patient's ability to behave, act and succeed in life. The stigma of mental illness leads to increased symptoms and damage caused by schizophrenia. It lowers self-confidence, worsens application, and prevents returning to society and work. Self-stigmatization is a maladaptive psychosocial phenomenon distressing a significant number of psychiatric patients. It can lead to harmful discrimination, resulting in many disadvantages in access to health care, worse care and more life-threatening events that may harm self-confidence. Our review aims to map the consequences and possible management of self-stigma in schizophrenia patients.

METHOD: The PubMed database was used to find the papers published from January 2000 to May 2020 using the keywords in different combinations. A total of 3,303 reports was selected by primary search using keywords in different combinations. After analyzing their titles and summaries, according to the eligibility criteria, 341 articles were chosen. After a comprehensive examination of the complete texts, 155 papers were included in the review process.

RESULTS: Self-stigma has a significant adverse effect on the remission of patients with schizophrenic disorder. However, the degree of self-stigma may fluctuate over time, depending on external contextual factors such as geographical location, employment, attitudes of society and the surrounding environment, and internal factors such as the severity of the disorder and their symptoms, mood, or response to treatment. Ignoring stigma in treatment programs for people with schizophrenia may be an insurmountable obstacle to achieving remission in many patients.

CONCLUSION: Psychoeducation or psychotherapy that focuses on a change in self-stigma may increase the patient's stigma resistance and possibly accept the psychotic illness. These therapeutic interventions can help patients with developed psychotic illness and people at high risk of developing it.

Introduction

Schizophrenia is a severe mental disease that significantly disrupts a patient's ability to behave, act and succeed in life (Nuttall *et al.* 2019; Galderisi *et al.* 2020). It is a mental disorder considered one of the most stigmatizing disorders mainly due to strange, different and bizarre behavior experienced as incomprehensible or alienating to others (Thornicroft *et al.* 2007; Giandinoto *et al.* 2018; Wong *et al.* 2018). Psychotic illness often means a substantial personal impairment. Symptoms and disturbed mental functions could be persistent and chronic (Watson *et al.* 2007; Reinhard *et al.* 2019). Subsequent social harm can have the same effect as the disease itself and lead to further disruption of mental functions (Vauth *et al.* 2007; Belvederi Murri & Amore 2019). Prejudices against people with schizophrenia can seriously interfere with both diagnostics and treatment, particularly with the further adaptation and reintegration of the patient. They are at continual risk of misunderstanding and exclusion from society (Baker *et al.* 2019; Rezayat *et al.* 2019).

Schizophrenia is a chronic disease usually beginning during puberty or early adulthood. It is characterized by a significant disturbance of thought processes (formal and content), perceptions, emotions, behaviours and cognitive functions (McCleery & Nuechterlein 2019; Porcelli *et al.* 2020). The latest epidemiological studies show a consistent lifetime prevalence of the disease between 1 and 1.7% (Saha *et al.* 2005; Simeone *et al.* 2015; Moreno-Küstner *et al.* 2018).

The hallmark of schizophrenia treatment is antipsychotic medication (Samara *et al.* 2016). They act against hallucinations and delusions, affective symptoms (depression or mania), anxiety and can also calm or revive the psychomotor symptoms (Siafis *et al.* 2019; Jones *et al.* 2020). Some drugs are also available in long-acting injection form - they are injected intramuscularly once every few weeks (Riedford 2020). Schizophrenia often disrupts the functioning of a person in basic life patterns, and the treatment is supplemented by psychological intervention (Freeman *et al.* 2015; Bighelli *et al.* 2018). The goal is to increase a person's resistance to stress, teach him/her the useful forms of communication, cope with demands of the social environment, and help him reduce self-stigma (Yanos *et al.* 2012; Setti *et al.* 2019; Yanos *et al.* 2019).

Self-stigmatization is a maladaptive psychosocial phenomenon distressing many psychiatric patients (Livingston & Boyd 2010). Patients with a high degree of self-stigma accept the social prejudgments about persons with a mental illness and thus are convinced of the subsidiarity and untreatability of their psychiatric problems (Corrigan *et al.* 2011). Patients often feel embarrassed about having a mental illness. Such emotional conditions limit interpersonal communication and lead to deterioration in job functioning. When an individual labels themself as a person who needs the treatment, this labelling can lead to an additional decrease of self-esteem, which creates the self-stigma of need to look for help (Tucker *et al.* 2013).

Method

The PubMed database was used to find the papers published from January 2000 to May 2020 using the following keywords: „self-stigma"and "schizophrenia" in successive combinations with "therapy" or "quality of life" or "personality" or "comorbidity" or "psychotherapy" or "adherence", or "pharmacotherapy" or "outcome" or "course" or "severity" or "psychopathology" or "cognitive functions". Furthermore, the selected papers had to meet these criteria for inclusion: (1) published in peer-reviewed journals; (2) studies in humans; or (3) reviews on the related topic; (4) accessible in English. The criteria for exclusion were: (1) abstracts from conferences; (2) commentaries;

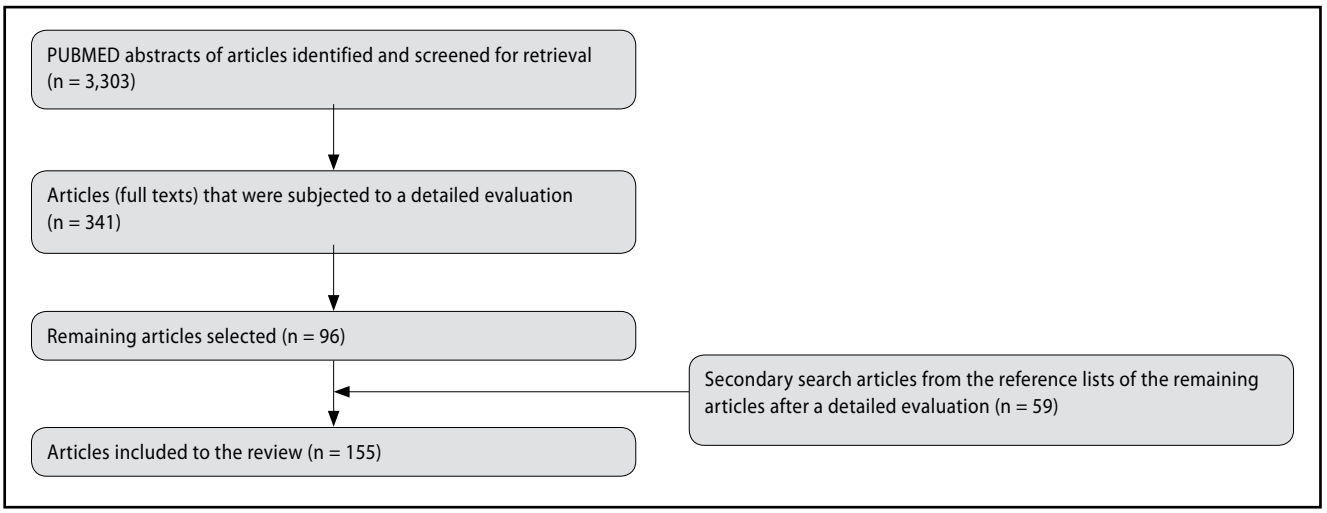

Fig. 1. Summary of the selection process

(3) subjects younger than 18 years. The filter selected the articles identified and screened for retrieval in PubMed.

A total of 3,303 reports was selected by primary search using keywords in different combinations. After analyzing their titles and summaries, according to the eligibility criteria, 341 articles were chosen. After a comprehensive examination of the complete texts, 96 papers have been nominated. Secondary documents from the reference lists of the primary designated papers were searched, evaluated for appropriateness, and added to the primary list of the papers (n = 59). This way, 155 papers were included in the review process (Figure 1), as recommended by the PRISMA Guidelines (Moher *et al.* 2009).

There are several clinically relevant questions, which we asked in this review:

(1) Is there any theoretical background or model of self-stigma and its development in schizophrenia?
(2) Are there any relationships between self-stigma and clinical picture, type of psychopathology, or disorder's progress?
(3) Is there any connection between self-stigma and demographic data?
(4) Is there any relation between self-stigma and quality of life?
(5) Is there any relation between self-stigma and comorbidity?
(6) Are there any relations between self-stigma and personality traits?
(7) Is there any relation between self-stigma and a cognitive deficit?
(8) Is there any relation between self-stigma and treatment efficacy?
(9) Are there any possibilities to decrease self-stigma during treatment?

Results

Stigmatization of schizophrenic disorders

Most individuals diagnosed with schizophrenia have to deal with some form of stigma (Dickerson *et al.* 2002, Lee *et al.* 2006). Stigma refers to a stereotype set of negative attitudes, misleading beliefs and concerns about the diagnosis of schizophrenia, which are affected by how others understand the syndrome (Ritsher & Phelan 2004; Thornicroft *et al.* 2007; Yanos *et al.* 2019; Bradstreet *et al.* 2018). It encompasses three parts: awareness of the stereotype, agreement with it, and applying it to oneself (Corrigan *et al.* 2011). The public view of schizophrenia is shaped by a lack of knowledge, prejudices and discriminatory behavior and can be further enhanced by a scientifically inaccurate emphasis on the biological model of disease (Angermeyer *et al.* 2005; Schulze 2007; Thornicroft *et al.* 2007; Lincoln *et al.* 2008).

Self-stigma is a process that begins to take place after a labelled person integrates the social prejudices that apply to him/her. Personality traits that previously formed an individual's core are now receding into the background, and features that are stereotypically attributed to stigmatised individuals are beginning to form the dominant part of self-concept—changes in behaviour that are accompanied by the process approximate to stereotypically expected behaviour. The internalisation of stigma leads to a loss of self-confidence, a conviction of loss of control over the direction of one's own life and its manageability, and an increase in doubts about whether it is worth taking part in social events.

Different types of public stigma, self-stigma, and avoidance of the label can have profoundly damaging consequences for individuals with schizophrenia (Schulze and Angermeyer 2003; Dinos *et al.* 2004; Buizza *et al.* 2007; Gonzalez-Torres *et al.* 2007). Ritsher & Phelan (2004) show that the harmful consequences of stigma can work through the inner perceptions, beliefs and emotions of a stigmatised person and beyond direct stigmatisation by others. Most stigma research studies investigate the adverse reactions of the general population to schizophrenic patients. Less often, the attitudes of the patients are exposed to this stigmatisation. Although stigmatisation is generally referred to as a problem, the possibility for its change is not adequately reported (Royal ANZ Clinical Practice Guideline 2005).

Studies suggest that self-stigma is higher in schizophrenia spectrum disorders patients in comparison to patients with depression or neurotic spectrum disorders (Holubova *et al.* 2016a; Holubova *et al.* 2018).

The model integrating the influence of genetic risk, stigma and schizophrenia

Genetic susceptibility to schizophrenia is probably much more widespread than the disease itself. Environmental factors can likely explain why some people develop a disorder and others not (van Os *et al.* 2008). It seems that some environmental factors can provoke the behavioural expression of harmful genes, a phenomenon known as the gene-environment relationship (rGE). In some cases, rGE represents the observed environmental risk factor as only a genetic concomitant phenomenon and is itself without a causal consequence. Sometimes, however, the environmental factor in rGE may have causal significance. This second scenario may be particularly crucial in the prodromal phase of the disease.

According to the model described by van Zelst (2009), depicted in Figure 2, some of the causal environmental risks for schizophrenia are negative interpersonal relationships in response to behavioural expression of genetic risk. For example, a person may be stigmatised by strange speech or paranoid reactions, which indicates schizophrenic susceptibility. Although stigma does not appear from a formal diagnosis, structural discrimination may occur if such behaviour is perceived as similar to schizophrenia, different, unusual

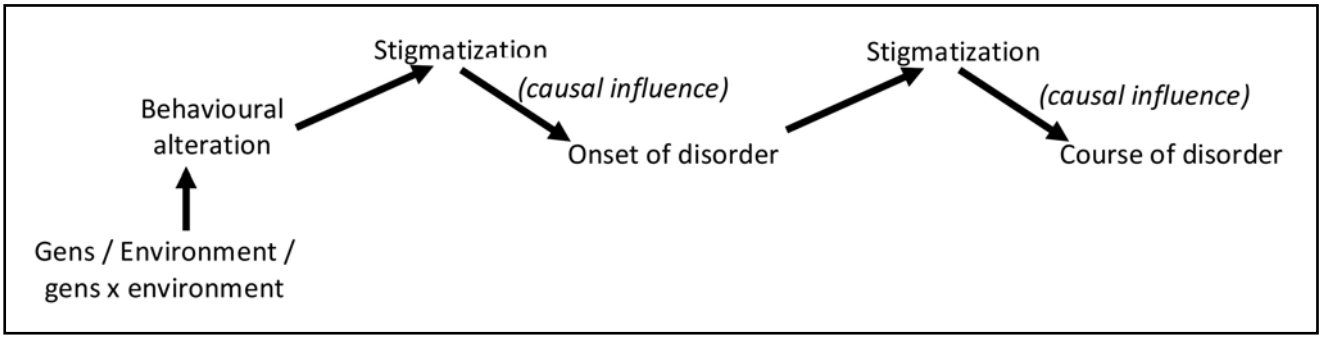

Fig. 2. Vulnerability and stigmatisation interaction model at onset and course of the disorder (adapted according to van Zelst 2009)

or strange. According to van Zelst, these early interpersonal processes associated with schizophrenic susceptibility make up a continuum with the stigma observed after the onset of the disease and its negative consequences on the course of the disease.

Stigma and the onset of schizophrenia

Schizophrenia and other psychotic disorders are characterised by changes in behaviour and cognitive development. Before the onset of the first psychotic episode, there are usually identifiable changes in function in the so-called prodromal phase of the disease (Yung *et al.* 2003). For instance, psychotic symptoms may appear briefly. In other cases, long-term, less pronounced symptoms cannot be identified as psychosis but appear to be a personality change. There are tendencies to recklessness, avoiding society, closing inside himself/herself, losing interest in activities that the individual has previously devoted to, or growing interest in unusual activities. Subclinical psychotic symptoms may persist for a long time and meet the criteria for a schizotypal disorder. Another type can be manifested by neurotic or depressive symptoms that commonly begin before positive symptoms (Drake & Lewis 2005).

According to some authors, people exhibiting prodromal symptoms often experience structural discrimination/stigmatisation to the stage that might increase the risk of psychosis (Welham *et al.* 2009). For example, Janssen *et al.* (2003) examined whether the perception of discrimination based on skin colour or ethnic origin, gender, age, appearance, disability, or sexual orientation may be potentially associated with the onset of psychotic symptoms. The results showed that the perception of discrimination predicts the initial misconceptions depending on its rate. One way to explain these conclusions is to assume that subtle changes in the behaviour of individuals with early signs of vulnerability to psychosis give rise to negative social interactions and structural discrimination, which then increase the risk of delusional production by facilitating the paranoid style of attribution (Garety *et al.* 2001). Another possible explanation is the mesolimbic dopaminergic system's sensitisation (an increase of basic activity) (Selten & Cantor-Graae 2007).

Stigma and the course of schizophrenia

Although formal follow-up cohort studies have not yet studied stigma as a disease modifier, there are numerous reasons to believe there might be a significant relationship between stigma and the course of the disorder. Stigmatization can lead to harmful discrimination, resulting in many disadvantages in healthcare access (Sartorius 2006). Stigmatization is a long-lasting stressor, and there is much evidence that stress is a factor that can trigger an episode of schizophrenia (Norman & Malla 1993; van Winkel *et al.* 2008) and may function as a factor that modifies the course of the disorder. Especially stigmatising behaviours and victimisation can worsen the symptoms and impair social functioning (Perlick *et al.* 2001, Yanos & Moos 2007). Stigma can lead to delayed help-seeking behaviour and treatment to avoid labelling. In particular, the threat of social disagreement or deterioration in self-confidence that accompanies this label is related to the under-utilisation of health and social services (Corrigan 2004). Besides, prejudices and discrimination related to schizophrenia result in poor adherence to the treatment (Villares and Sartorius 2003). In a study of the internalised stigma, Ritsher & Phelan (2004) found that alienation predicts depressive symptoms and reduced self-esteem, which, without help, is hard to escape, and the vicious circle of low self-esteem and alienation are mutually reinforcing. Disease awareness and insight may lead to better outcomes, but if the insight accompanies the acceptance of the self-stigma attitudes, it is more likely that the insight impacts social functioning, reduces hope and self-esteem (Lysaker & Salyers 2007, Vrbova *et al.* 2017). Internalized stigma is also associated with adverse outcomes among prolonged psychosis (Firmin *et al.* 2018).

Personal stigma in schizophrenia

With the internalization of stigma or self-stigma, which is a gradual process of psychological assimilation of social stereotypes into psychological disorders, it is usual that the disabled person gradually loses what he/she previously thought of, giving him/her value and meaning, and gradually renouncing his/her wishes and ambitions to the future (Brohan *et al.* 2010). In prin-

ciple, an individual not only believes that others think he/she has no value, but he/she thinks so of himself/herself, so he/she may assume that others will not be friends, partners, or employees. This changing view generally leads to behavioural changes, such as avoiding others, isolation, passivity, resignation to new relationships, termination of studies or work. The results of the systematic review of 54 studies of stigma show that perceived and experienced stigma is a phenomenon related to a high percentage of patients with schizophrenia spectrum disorders (Gerlinger *et al.* 2013). On average, 64.5% of patients felt, and 55.9% experienced stigmatisation. According to this study, perceived or experienced stigma predicted more severe depression, higher social anxiety and avoidant behaviour as a coping strategy, lower quality of life, lower self-acceptance and self-confidence, worse social functioning, less social support, and worse coping with the problems.

Two studies have highlighted personal stigma in the first episode of psychosis (Tarrier *et al.* 2007; Birchwood *et al.* 2007). Patients in the first episode were more likely to experience stigmatisation if they also suffered from social anxiety (Birchwood *et al.* 2007). This was confirmed for chronic patients in Vrbova *et al.* (2018a) study.

Factors connected with self-stigma in schizophrenia

The internalisation of the stigma begins when the patient notices that others behave differently are less friendly and when he/she is aware of the prejudices that lead to such behaviour. He/she then begins to believe that the views and attitudes of society towards people with a mental disorder are well-founded. In the final stage, the stereotypes relate to each other, with patients believing and acting in harmony (Corrigan *et al.* 2011). The systematic review results by Gerlinger *et al.* (2013) show that about one-third to a half of patients with schizophrenic disorder are ashamed of their illness and are experiencing alienation as the most common aspect of self-stigma. Self-stigma predicted more severe depression, higher social anxiety, lower quality of life, less self-confidence, worse social functioning, less hope, worse professional functioning, worse healing, less support and worse treatment co-operation according to this review.

Most studies are focusing on self-stigma display a significant correlation between internalized stigma and the severity of the positive, negative and global symptoms of schizophrenia (Holubova *et al.* 2016b; Vrbova *et al.* 2016; Vrbova *et al.* 2018a).

Self-stigma and quality of life

The quality of life is a multidimensional concept intended to reflect the overall functioning and well-being of the patient in life. The quality of life does not necessarily reflect the severity of the disease, although it typically correlates with it (Sidlova *et al.* 2011; Holubova *et al.* 2016). Some studies point to a strong association between the quality of life and self-stigma, showing that self-stigmatization leads to a lower quality of life in patients with schizophrenia (Tang & Wu 2012; Vrbova *et al.* 2017; Holubova *et al.* 2018).

Self-stigma and coping strategies

Patients with schizophrenia in the study of Holubova *et al.* (2016a) overused negative coping strategies compared to the general population, especially the strategies of *Escape tendency* and *Resignation*. In schizophrenia, significant associations between self-stigma, the severity of the disorder, and coping strategies were detected. Patients who used negative coping had higher levels of self-stigma; those who used more positive strategies experienced lower self-stigma levels (Holubova *et al.* 2016a). After adjusting for age and sex, self-stigma negatively correlated with Positive coping and positively with Negative coping (Holubova *et al.* 2018).

Self-stigma and demographic factors

Current research displays that sex, heredity, and education are not significantly related to the level of self-stigma in patients with schizophrenia (Holubova *et al.* 2016b; Gerlinger *et al.* 2013). The protecting role of the relationship with the partner is an ambivalent factor (Vrbova *et al.* 2018a; Gerlinger *et al.* 2013). On the other hand, having a stable job decreased the level of self-stigma (Kamaradova *et al.* 2015; Holubova *et al.* 2016a). The level of self-stigma correlated significantly with the duration of the disorder (Holubova *et al.* 2016b; Vrbova *et al.* 2017a). This seems to agree with common sense – those who have lived with their disease for many years are more likely to have met discrimination from others, have suffered more episodes of the disorder, and have experienced more hospitalizations.

Self-stigma and comorbidity

Most studies focused on self-stigma display a significant correlation between internalized stigma and the intensity of symptoms of anxiety, depression, and the severity of psychopathology in patients with schizophrenia spectrum disorder (Vrbova *et al.* 2017a). The comorbidity with social phobia showed higher self-stigma than without such comorbidity (Vrbova *et al.* 2018a).

Impact of self-stigma on the treatment of schizophrenia

The lack of therapy aggravates many mental disorders because psychiatric treatment and psychiatric facilities are subjected to prejudice. Being a patient of a psychiatric facility often means a feeling of loss of honour. The mentally ill, portrayed as dangerous monsters capable of any form of cruelty, are often persecuted by the media. These conditions make the life of patients with visible signs of disease particularly difficult. The more patient and family feel the psychiatric diagnosis as a stigma, the more often he/she encounters stig-

matisation among healthcare staff and the more he/she expects to be rejected by co-workers or friends, the more cumbersome the treatment. Similar prejudices are related to the psychiatric treatment itself. In addition to marking mental disorders, this is another reason to avoid psychiatry, even though it is evident that treatment is needed. Psychopharmacs are considered low-active substances that are not suitable for causal treatment. They only cushion and "curl" can cause dependence or hurt the brain and the body. Such is the view of antipsychotic drugs in particular. Thus, stigma undermines cooperation in taking drugs (Assefa *et al.* 2012). It adversely affects the course of the disease. The World Psychiatric Association considers the schizophrenia stigma issue a severe and widespread phenomenon that has announced a program to face it. The program aims to get rid of discrimination and, if possible, preserve the patient's autonomy and his right to make decisions about himself.

Fung *et al.* (2010) examined the relationship between self-stigma, adherence to treatment, psychopathology, insight, and readiness for change in 105 patients with schizophrenia from five psychiatric facilities in Hong Kong. The results show the direct effect of self-stigma and psychopathology on poor psychosocial treatment and the indirect effect on readiness to change and overall adherence to treatment. Self-stigma has no direct effect on psychopathology. Tsang *et al.* (2010) then examined the relationship between self-stigma, readiness for change and adherence to the psychosocial program in 105 patients with schizophrenia. Multiple-step regression has shown that individuals with higher overall functioning are more prepared to change, show higher self-esteem, and work better in treatment. Fung *et al.* (2011) have subsequently developed a program to reduce self-stigma in patients with schizophrenia, consisting of 12 groups and four individual follow-up meetings in which psychoeducation, cognitive-behavioural therapy, motivation interviewing, social skills training, and a goal-achievement program are taking place. Sixty-six patients with schizophrenia with self-stigma were randomly assigned to the program to reduce self-stigma (34 patients) and the newspaper reading group (32 individuals). The degree of self-esteem, readiness for change, insight, self-confidence, and adherence to therapy were evaluated at six intervals. It turned out that this program reduced the decline in self-confidence, helped prepare for the change in problematic behaviour, and increased adherence. However, after six months, these differences did not persist.

The attitudes of people encountered after release from psychiatric care (especially after hospitalisation) are often influenced by the stereotype of the viewpoint of the mentally ill. Negative attitudes are often promoted by the media, where people with a mental disorder are portrayed as insidious, offensive, incompetent and unreasonable individuals who are dangerous or ridiculous. Stigmatization is further related to the setting in which the affected person is treated. Hospitalization in a big psychiatric hospital is associated with more clear negative labelling than in a general hospital or clinic psychiatric wards (Janík 1987).

Impact of self-stigma on the functioning of schizophrenia

Quality of life is indirectly related to perceived/experienced stigma and self-esteem in all studies that examined this relationship (Gerlinger *et al.* 2013; Holubova *et al.* 2016b; Vrbova *et al.* 2018a). Positive symptoms and depression are associated with a personal stigma (Charles *et al.* 2007; Margetić *et al.* 2010). Self-stigma is associated with a decline in self-confidence and self-esteem, worse social and working functioning, increased severity of symptoms, and decreased cooperative treatment (Cavelti *et al.* 2011; Kleim *et al.* 2008; Sirey *et al.* 2001; Wahl 1999; Watson *et al.* 2007; Yanos *et al.* 2008; Yanos *et al.* 2010; Holubova *et al.* 2016a; Vrbova *et al.* 2018a). In recent studies in Europe, the prevalence of self-stigmatising attitudes in individuals with severe psychiatric disorders were 42% and 36% (Brohan *et al.* 2010; West *et al.* 2011).

The patient's return to the original place in the family and society is a very uncertain period. His/her behaviour is the subject of extraordinary attention and criticism. People's tolerance towards the various marginal behavioural variants of the patient tends to be diminished, and there is a natural tendency to ascribe every excruciating act to the label - mental disorder. The label and sometimes the continuing problematic behaviour is the source of the rejection of the mentally ill person. This may be an obstacle to his/her integration.

People in multiple networks of social relationships usually choose only those who become personally relevant to them and connect with their life goals and program. In patients with a mental disorder, their relationships and activities are restricted, so the choice of social relationships is often not free but forced by a mental disorder and its consequences.

The choice of relationships may have a compensatory or handicapped character. The patient's social network can be reduced to a group in a pub that accepts him/her with schizophrenia or finds its place in a group of drug addicts.

Using the theory of social status, Birchwood *et al.* (2007) suggest that one of the possible ways to develop social anxiety in schizophrenia is the expectation of a catastrophic loss of social status associated with schizophrenia stigma. In 79 patients with the first episode of psychosis, social anxiety was detected. 23 social anxious and 56 non-anxious patients were evaluated for cognitive assessment of stigma of psychosis and perceived social status while controlling depression, psychotic symptoms and general psychopathology. Patients with social anxiety experienced greater feelings of shame associated with their diagnosis and were convinced that the diagnosis is placing them, unlike others, at the margins of society and having low social

status. Therefore, the authors suggest that the development of social phobia in schizophrenic patients may have a high proportion of self-stigma. Our study with chronic schizophrenia spectrum patients showed the same results (Vrbova *et al.* 2018a).

Lysaker *et al.* (2008 a, c) investigated whether internalised stigma and deficits in meta-cognition are a potential barrier to gaining more experience about themselves. Utilizing a semi-structured interview before entering the rehabilitation research program, 51 patients with schizophrenia were interviewed about themselves and their illnesses. The quality of their own experience has been assessed using the Scale of evaluation of life development (STAND). The results were then correlated with the parallel assessment of the stigma using the Internalized Mental Stigma Scale (ISMI) and the meta-cognitive assessment using the Scale of meta-cognition (MCA). In the following multiple regression analysis, which included demographic data, social need and disease insight, it was found that higher ratings in the STAND method were significantly associated with higher metacognitive abilities and lower stereotype of disability confirmation. The results suggest that the quality of the relationship with itself, the experience of themselves, expressed in a personal story, can be influenced by an internalised stigma and weakened the ability to think about own and others' thinking.

Lysaker *et al.* (2008b) examined the various dimensions of self-confidence, including lovability, personal power, competence and honest self-acceptance, and four stigma domains – stereotype agreement, experiences of discrimination, social withdrawal, and rejection stigma. The participants were 133 adult patients diagnosed with schizophrenia or schizoaffective disorder. The step-by-step multiple regression has shown that aspects of self-esteem related to lovability have been closely associated with fewer feelings of alienation from others due to illness. Aspects of self-esteem related to managing their affairs were more closely associated with the rejection of stereotypes of mental illness. The experiencing of having an impact on others has been associated with the absence of the experience of discrimination and the ability to reject stigma.

In the previous study, Lysaker *et al.* (2010) examined the relationship between self-esteem, self-stigmatisation, positive and negative symptoms, emotional discomfort, and adequate recognition in others with prospective social anxiety assessments using the Multidimensional Anxiety Assessment Questionnaire in 78 patients with schizophrenia or schizoaffective disorder. One-dimensional correlations have shown that self-confidence, self-esteem, negative symptoms and emotional difficulties are significantly related to social anxiety assessed at the time and five months follow up. Multiple regressions have found that negative symptoms and experiences of discrimination predict social anxiety prospectively, even if the initial levels of social anxiety have been controlled. Therefore, negative symptoms and self-stigma can be permanently related to social anxiety over time.

Consequences of self-stigma

The rate of self-stigma may fluctuate over time (Dalky 2011; Griffiths *et al.* 2004; Macinnes & Lewis 2008; Michalak *et al.* 2011). The culturally specific norms and values play an essential role in what public attitudes appear in the environment of a person who has schizophrenia (Weiss *et al.* 2001; Lee 2002; Pescosolido *et al.* 2010; Abdullah & Brown 2011). Because there is a close connection between public stigma and self-stigma, a particular context may be more hurtful, while another more protective. Besides, internal experiences such as symptoms and their exacerbation or mitigation can significantly affect self-confidence and self-esteem and, through them, the degree of self-stigma (Livingston & Boyd 2010; Lysaker & Salyers 2007; Markowitz *et al.* 2011).

The consequences of stigma internalisation are manifested at different levels - and increase in dysphoric emotions, a decline in self-esteem and quality of life, and an increase in anticipatory anxiety in the expectation of negative behaviour by others (Muñoz *et al.* 2011). A person, who internalises social stigma, tends to social isolation and can begin to suffer from social phobia. Its behaviour may be maladaptive and, exceptionally, a change of identity occurs (Livingston & Boyd 2010; Camp *et al.* 2002). A similar model explaining the internalisation of stigma is based on four steps - stereotyping awareness, consent, self-application and ultimate reduction of self-esteem and hope (Corrigan *et al.* 2011).

Several studies have shown that self-stigma and its manifestations in behaviour have negative consequences, including the loss or worsening of self-confidence, increased depressive symptoms (Ritsher & Phelan 2004; Yang 2007), loss of position, demoralisation and reduction of income (Link *et al.* 1997; 2007; Ritsher & Phelan 2004; Yang 2007). In the clinical picture, self-stigma is associated with higher depressive symptomatology, increased suicide risk, and worse drug use (Ritsher & Phelan 2004; Vrbova *et al.* 2018b). Other consequences of self-stigma as a result of social isolation include the deterioration in work functioning and quality of life (Link 1987; Perlick *et al.* 2001; Ritsher & Phelan 2004; Vauth 2007; Wu & Tang 2012; Moriarty *et al.* 2012; Holubova *et al.* 2016c; Vrbova *et al.* 2018a). It follows from the above that mitigation or elimination of self-stigma may significantly affect the treatment of patients with schizophrenia.

In the qualitative study of Dinos *et al.* (2004), the feelings of anger, depression, fear, anxiety, isolation, guilt, shame, deterioration in the likelihood of remission, and avoidance of search for help were among the most common consequences of self-stigma.

The incidence of comorbid social phobias in psychotic illnesses ranges from 11 to 36% (Cosoff

& Hafner 1998; Braga *et al.* 2005; Pallanti *et al.* 2004; Voges & Addington 2005; Mazeh *et al.* 2009; Vrbova *et al.* 2018a). Prevalence is higher than in the healthy population, 12.1% (Kessler *et al.* 2005). The causes of a higher incidence of social phobia in patients with schizophrenia have not been explained yet. Changes in the social involvement of patients are likely to be present before the clinical onset of the disease. Romm *et al.* (2012) reported that severe symptoms of social anxiety in patients with the first psychotic episode are associated with worse premorbid functioning.

Similarly, negative self-esteem and self-efficacy are associated with this co-morbidity (Gumley *et al.* 2004). For patients with schizophrenia, it is another obstacle that makes their everyday life worse. If social phobias are not recognised and treated, they are associated with more severe symptoms of psychosis and lower self-esteem, higher harm avoidance, less persistence (Vrbova *et al.* 2018a). At the same time, the low premorbid self-confidence of schizophrenic patients is a risk factor for the development of social phobia (Lysaker *et al.* 2008b). The presence of social anxiety is a significant predictor of shyness associated with the diagnosis of psychosis (Birchwood *et al.* 2007; Karatzias *et al.* 2007). This finding is significant because higher anxiety levels are associated with more hallucinations, seizures, depression, hopelessness, better insight, worse functioning and progress (Huppert & Smith 2006; Lysaker & Sakyers 2007). Prejudices and discrimination associated with schizophrenia further increase the likelihood of alcohol and drug abuse (Villares & Sartorius 2003). Self-stigma can negatively affect both objective and subjective quality of life (Holubova *et al.* 2016b). The attribution of mental illness problems is associated with reduced subjective quality of life in schizophrenic patients, and this attribution can be mediated by perceived self-stigma and lower self-esteem (Mechanic *et al.* 1994, Kunikata *et al.* 2005). People with psychiatric problems are often socially rejected, which may negatively affect their feelings of well-being, satisfaction and especially self-esteem (Verhaeghe *et al.* 2008). Anxiety disorders, which affect up to 38% of schizophrenic patients, could further burden them, leading to a further decline in their subjective quality of life (Braga *et al.* 2005, Braga *et al.* 2010).

Contemporary research provides more evidence of a significant relationship between schizophrenia and childhood psychological trauma (Bennouna-Greene *et al.* 2011; Lysaker *et al.* 2005; Lysaker & Salyers 2007; Sideli *et al.* 2012; Matheson *et al.* 2013; Larsson *et al.* 2013). Sexual trauma is also associated with generally higher anxiety in its victims (Lysaker *et al.* 2005; Lysaker & Salyers 2007) and often leads to feelings of discrimination, isolation and social withdrawal due to self-stigma (Outcalt & Lysaker 2012). However, the experience of sexual abuse in childhood itself does not necessarily lead to a psychotic illness. Genetic disposition and other environmental risk factors also play a role (Sideli *et al.* 2012). The risk of developing psychosis in adolescence and adulthood rises even after non-sexual childhood traumas. Meta-analysis Varese *et al.* (2012) and Matheson *et al.* (2013) have shown that the experience of childhood trauma increases the risk of later schizophrenia in comparison with individuals who were not traumatised in childhood.

The self-stigma contributes to suicidality in patients with schizophrenia spectrum disorders (Rusch *et al.* 2014, Vrbova *et al.* 2018b).

Fight against self-stigma in schizophrenia

Self-stigma has a significant adverse effect on the remission of patients with schizophrenic disorder. However, the degree of self-stigma may fluctuate over time, depending on external contextual factors such as geographical location, employment, attitudes of society and the surrounding environment, and internal factors such as the severity of the disorder and their symptoms, mood, or response to treatment (Ben-Zeev *et al.* 2012). Because the degree of social stigmatisation, perceived stigma and self-stigma is influenced by external factors, it is possible that external changes can influence all these stigma factors.

It seems that stigmatisation can also be seen as a modifiable factor in developing and maintaining a psychotic disorder. Ignoring stigma in treatment programs for people with schizophrenia may be an insurmountable obstacle to achieving remission in many patients (Yanos *et al.* 2010). Yanos *et al.* (2010) argue that individuals with severe mental illness who consider themselves mentally ill may also think that they are incompetent and unable to recover, which then blocks further rehabilitation and return to work or relationships and closes other possibilities in life (Lucksted *et al.* 2011; Fung *et al.* 2011; Yanos *et al.* 2012).

Psychoeducation or psychotherapy that focuses on a change in self-stigma may increase the patient's stigma resistance and a possibility to accept the psychotic illness. These therapeutic interventions can help patients with developed psychotic illness and people at high risk of developing it. Although such therapeutic approaches are still evolving, some simple recommendations can be found in the literature that may be of general use. Firstly, it is helpful to distinguish between negative symptoms, depression, anxiety, and self-stigma consequences. For example, social isolation may result from all of the above. To understand what interventions can be used, there is essential knowledge of stress management strategies for people with psychotic illness:

(1) They are improving knowledge about the stigma process and its implications for experts during their training and patients and their families during psychoeducation (Shin & Lukens 2002).
(2) Some studies have shown that the negative impact of stigma is higher when individuals use avoidance strategies to cope with stress and isolate themselves

face-to-face stigma (Ertugrul *et al.* 2003, Yanos *et al.* 2008). Therefore, it appears that the induction of more active styles and the sharing of experience, possibly in a group of similarly afflicted and supportive individuals, may have a significant therapeutic effect (Davidson *et al.* 2006).

(3) Another critical way to reduce self-stigma is the integration of the patients into society and return to work (Perkins *et al.* 2009).

Management of self-stigma in patients with schizophrenia

Chronic patients rarely establish their own families. More often, they live with their parents, less often with siblings. Families can have a very different climate. Parents get into hyper-protective, anxious or excessively critical positions. Efforts to direct an offspring pose a risk to the patient (especially the tendency to control whether he or she is taking medication) in his effort for autonomy (hence the medication is dropping) and relapse quickly. So, the family needs to look for a way to allow their partial autonomy while not feeling threatened by his/her relapses or frustrated by his/her behaviour. Here, they can significantly help organisations of families that share an experience. The beginning of meetings for such families can be psychoeducational meetings for family members organised by psychiatric institutions (Beldie *et al.* 2012).

Other ways to help with self-stigma are self-help groups. The existence of self-help groups has a clear purpose - to provide psychological support to people who have a mental disorder and their families. Self-help groups help to cope with psychological problems and a stigmatised position in society. The self-help group uses almost all the therapeutic factors of group psychotherapy - especially altruism, cohesion, universality, imitation, hope and catharsis. There is more empathic reaction than in group psychotherapy alone, as there are almost no interpretations and confrontations (Yalom 1999).

The emergence of related patient initiatives dates back to the 1980s. They were increasing the primacy of outpatient care with the release of many long-term hospitalised patients became increasingly related to the burden. One of the main trends was to "isolate" the patient from the influence of the family. At that time, many psychiatrists looked at the relatives, not always favourably. The term "schizophrenogenic mother" created by psychoanalysts excavated a gap that significantly impeded communication between professionals and families. Patients, particularly with more severe disorders, were dependent on the family and, without family working virtually failed, was overlooked.

An extensive study by the World Psychiatric Association showed that patients in developing countries have a significantly better course of the disease than those in developed countries (Sartorius 2007). They generally have fewer relapses and are better adapted, although there are minimal treatment options in their countries. One explanation was that families in developing countries are more concerned about their close relatives and integrate them into life, while in developed countries, sick relatives are "deferred" to institutional care (Cooper & Sartorius 1977). However, the new development, which triggered the psychopharmacological revolution, was that patients were getting more and more with their families, and increased responsibility was passed on to relatives. Many patients who have been hospitalised in permanent wards at the time are now home. The capacity of psychiatric hospitals is gradually decreasing. Families have been confronted with a new situation. The family is confronted with bizarre behavior, patient inactivity, isolation and other complications of the patient's health. Such a situation is often not tolerated by family members.

The family provides the patient with care needs rest, and therefore the option of hospitalization is chosen even without serious health reasons for the patient. If we refer to patients with a chronic course, we need to realise the high burden of relatives who have been experiencing the illness for years with their loved ones, and they move quickly into hypercritical or hyper-protective attitudes. This is particularly true when the family has little or no information about the disease and its peculiarities. Emotional aspects of hypercriticism or exaggerated engagement that occur mainly in families of schizophrenic patients often mean response to chronic tension and lasting stress (Öksüz *et al.* 2017; Aşık & Ünsal 2020). However, it also turns out that, unlike the traditional prejudices (the family has brought the patient to sickness), many families are unexpectedly good partners in treatment and good education, and they can help their relatives significantly (Calvo *et al.* 2015; Dewi *et al.* 2019; Kumar *et al.* 2020; Mubin & Livana 2020). It is surprising how many relatives, especially parents, tolerate it. For most families, the patient is a significant emotional and economic burden (Kate *et al.* 2014). There has been significant growth in burden and responsibility for the relatives.

On the other hand, the partaking of the family in care and its goals allows for better cooperation and quicker adaptation to reality. In many studies, the family's interest in the course of the disease has been of paramount importance. These are why psychiatry led a dialogue with close relatives for nearly 20 years, demanding both sides. Of purely therapeutic contacts, the relationship with relatives is gradually developing, taking many aspects into account. The current situation of families is improving due to the group of relatives, by taking the family into the planning of therapy, psychoeducational and family therapeutic activities (Xia *et al.* 2011; Zhao *et al.* 2015). Relatives receive emotional support, are given a significant word in the treatment of their relatives (Mittal *et al.* 2012). It is

here to observe the enormous success of the relatives' movement. They lobby in parliament, at the ministry, at health insurance companies. Their concern is to improve the quality of care for their loved ones, and collaboration with psychiatrists must be instead achieved before fighting confrontations.

Only a few studies have been completed on schizophrenia regarding interventions aimed at self-stigma. The first study showed no effect on perceived discrimination after six weeks of group cognitive behavioural therapy in 21 schizophrenic patients after 18 weeks follow up but found significant improvement in self-esteem (Knight *et al.* 2006). Another randomised, controlled study examined the effect of 10-week group psychoeducation on stigma perception in 48 individuals with schizophrenia and found a significant decrease in perceived discrimination and increased control skills in the experimental group (Shin & Lukens 2002). Perlick *et al.* (2011) published preliminary data on intervention to reduce self-stigma among members of the family of people with a severe mental disorder. One hundred fifty-eight caregivers of schizophrenic patients were recruited from the big city health care district. Those who reported at least the mean severity of the disorder associated with the psychiatric disorder (n = 122) were further evaluated (for self-esteem, isolation, secrecy, anxiety and social comparison) and randomized to two single interventions: group discussion over videos showing, how self-stigma intervenes or how to fight against it, or family psychoeducation sessions with a structured, didactic format. Both approaches have lowered the degree of self-stigma, but the first with video tutorials and discussions of their own experiences were more active.

Yanos *et al.* (2011) developed Narrative Enhancement / Cognitive Therapy intervention to reduce internalised stigma in severe mental disorders. In a study conducted with the program (Yanos *et al.* 2012), a total of 144 patients were examined at two sites, and the degree of self-stigma was investigated. In 39 patients with high self-stigma, randomisation was performed in the group treated with the program or treatment in the usual manner. Patients were evaluated before, after treatment and three months follow up. A comparison of treated patients versus unexposed subjects showed improvement in two aspects of self-stigma and insight.

Morrison *et al.* (2013) investigated whether cognitive therapy to prevent the development of psychosis in high-risk young individuals leads to an increase in their self-stigma. Participants were evaluated on a baseline measure and frequency of psychotic symptoms and self-stigma before the intervention and then after 6, 12, 18 and 24 months. It turned out that the self-stigma view was significantly reduced in the group treated with cognitive therapy against the control group, while the level of social acceptability of the psychotic experience did not change.

Conclusion

The review aimed to examine self-stigma in patients with schizophrenia. The answers to the questions established at the beginning of the search are:

(1) Is there any theoretical background or model of self-stigma and its development in schizophrenia?

The theoretical hypothesis is that the development of self-stigma is connected both with genetic vulnerability and the stigmatization of unusual individual behavior, which strengthen each other. There are no data that directly support this model. Indirectly this model could be supported by the efficacy of the destigmatization for self-stigma after adjusting for the environmental factors?

(2) Are there any relationships between self-stigma and clinical picture, type of psychopathology, or disorder's progress?

Several reports confirmed the correlation between self-stigma and the severity of the disorder. Because these were correlation studies, no conclusion can be made regarding causality. Longitudinal studies are needed for better understanding. No reports examine the connection of type of psychopathology or progress of the disorder and self-stigma. It could be an interesting question for further research. The traumatization in childhood could be a factor that influences self-stigma in adulthood in patients with schizophrenia.

(3) Is there any connection between self-stigma and demographic data?

Only a few studies examine the influence of demographic factors and self-stigma. A longer course of the disorder, earlier onset, a higher number of hospitalizations, being single or unemployed could be factors connected with higher self-stigma in some studies. Nevertheless, not all studies confirmed these findings. Also, there is no possibility to determine causality.

(4) Is there any relation between self-stigma and quality of life?

The self-stigma highly negatively correlated with the quality of life in most studies. Related to this, self-stigma is related to a decline in self-confidence and self-esteem, worse social and work functioning, and increased symptoms.

(5) Is there any relation between self-stigma and comorbidity?

The comorbidity with social phobia increases the self-stigma; also, comorbidity with depression had the same effect. The causality is also a problem, and it is difficult to say if a patient with higher self-stigma develops social phobia or depression because of isolation, or patients with comorbid social phobia or depression are more prone to self-stigmatization. There is also evidence

about the relationship between internalized stigma and the intensity of anxiety, depression and the severity of psychopathology in patients with schizophrenia.

(6) Are there any relations between self-stigma and personality traits?

During the stigmatization process, the patient's view of themself changes. Functions associated with stigmatization appear in the foreground, and other properties are pushed aside. Studies proved that self-stigma is associated with changes in behaviour, more harm avoidance, less perseverance, less cooperation. These factors could lead to a vicious circle, causing more stigmatisation by surrounding, that can be then internalized. Further internalization of the stigma leads to worsening of the condition and, as a result, to changes in personality.

(7) Is there any relation between self-stigma and a cognitive deficit?

We were unable to answer this question due to a lack of studies on this topic. The deterioration of cognitive functions can undoubtedly influence the view, and therefore, it could play a role in developing a self-stigma. The relation between self-stigma and the cognitive deficit remains an open question to be researched.

(8) Are there any relations between self-stigma and treatment efficacy?

Adherence to treatment and readiness to change is negatively correlated to self-stigma. Only a few studies examined the relationship between treatment efficacy and self-stigma. Preliminary conclusions suggest that it is possible to say that self-stigma decreased the efficacy of the treatment in patients with schizophrenia.

(9) Are there any possibilities to decrease self-stigma during treatment?

Few studies examined the changes in self-stigma during the therapy both in schizophrenic patients and ultra-high risk populations and their family members. Various strategies were used to address the self-stigma, from cognitive behavioural programs to self-help groups and psychoeducation seminars for the families. It seems that therapy could improve self-stigma, but the methodology of studies is not sufficient.

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