

Stigma Resistance in Patients With Schizophrenia

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Background: An individual's capacity to counteract the stigma of mental illness, stigma resistance (SR), is considered as playing a crucial role in fighting stigma. However, little is known about SR and its correlates in patients with schizophrenia or schizoaffective disorder. **Aim:** Exploring SR in patients with schizophrenia or schizoaffective disorder. **Method:** One hundred fifty-seven participants completed the "Internalized Stigma of Mental Illness" (ISMI) Scale including its subscale on SR. Measures of perceived devaluation and discrimination, depression, self-esteem, empowerment, quality of life, and demographic and clinical variables were obtained. **Results:** Two-thirds of all patients showed high SR. SR correlated positively with self-esteem, empowerment, and quality of life and negatively with stigma measures and depression. A social network with a sufficient number of friends, being single or married, in contrast to being separated, as well as receiving outpatient treatment, was associated with higher SR. **Conclusions:** SR is a new and promising concept. The development of stigma-resisting beliefs might help individuals in their hope of finding a fulfilling life and in their recovery from mental illness.

Key words: stigma/stigma resistance/quality of life/empowerment

Introduction

The stigma of mental illness is well established as a complicating feature of psychiatric disorders and treatment. This is especially true for schizophrenia.¹ While many efforts toward reducing stigma are underway, research has shown how stigmatizing attitudes are still prevalent among the general public, students, psychiatrists, and even service users themselves.^{2–5} It has been suggested that much

of the research has been "beside the point,"⁶ and it has been recommended to move on to alternative foci of research such as further research on interventions against discrimination and against prejudice, as well as ways to counteract underlying pessimism about the possibility of change.^{6,7} In addition to combating the stigma and discrimination in society, internalized stigma, ie, the inner subjective experience of stigma and its psychological effects resulting from applying negative stereotypes and stigmatizing attitudes to oneself, has become a research topic with growing interest.^{8,9} Internalized stigma leads to self-devaluation, shame, secrecy, and social withdrawal, making it even more difficult to overcome the already existing barriers to enter relationships, employment, and housing and seriously hindering the recovery process.¹⁰ Internalized stigma has found to be associated with depression,^{9,11–13} anxiety,¹¹ and positive^{11,13} and negative symptoms¹⁴ as well as a reduction in hope,^{13,15} self-esteem,^{9,13,15–17} empowerment,^{9,12,17} and quality of life (QOL).^{11,12,15} Greater internalized stigma at baseline predicted a worsening of depression and self-esteem at follow-up.^{11,18} Helping patients to cope with internalized stigma and especially to build up individual resistance could essentially improve their well-being. Ritsher and Phelan¹⁸ have argued that it is important both to combat the discrimination in society and to build up individual resistance. Because the fight against homophobia and racism has profited from people resisting stigma, an individual's capacity to counteract stigma, stigma resistance (SR), might similarly play a crucial role in fighting stigma and discrimination due to mental illness. However, until now, SR has not been explicitly studied.

To address this issue, we investigated SR using the SR subscale of the Internalized Stigma of Mental Illness (ISMI) Scale.⁹ This subscale has been designed to measure the "experience of resisting or being unaffected" by stigmatizing attitudes.⁹ The SR items include one general statement regarding the notion of a self-determined life of the individual without reference to mental ill health ("In general, I am able to live my life the way I want to"), one statement specifically about the fact that "people with mental illness make important contributions to society," and one about the situation of "feeling comfortable being seen in public with an obviously mentally ill person." The other 2 items include a personal acknowledgment of mental illness: One ascertains the individual's ability to "have a good, fulfilling life, despite my mental

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illness” and the other one goes one step further in attributing a positive impact to mental illness insofar as the experience of “living with mental illness has made me a tough survivor.” Because the SR subscale has not been included in the ISMI total score in several previous studies (given its relatively weak correlation to the other ISMI subscales),^{9,11} we predicted SR to be a separate construct, distinct from internalized stigma. Therefore, we examined the extent of SR being distinct from internalized stigma and stigma in society and explored SR in patients with schizophrenia and schizoaffective disorders. Also, we assessed the associations of SR with depression, self-esteem, empowerment, and QOL, factors known to be linked to stigma and which are crucial for recovery among people with schizophrenia-spectrum disorder. We hypothesized that people with higher SR might be less depressed and have higher levels of self-esteem, empowerment, and QOL. This study is, to our knowledge, the first to investigate SR and its correlates in patients with schizophrenia or schizoaffective disorder.

Methods

Recruitment

Participants were recruited at the Department of Psychiatry and Psychotherapy of the Medical University of Vienna (inpatient and day clinic care) and in various public mental health centers in Vienna and lower Austria (outpatient care). Inclusion criteria were diagnosis of schizophrenia or schizoaffective disorder according to *International Classification of Diseases, Tenth Revision*, criteria, age 18–65 years, and being stable enough to fill out the questionnaires. After having received information about the aims of the study, participants were asked to sign an informed consent form. The study was conducted with the approval of the Ethics Committee of the Medical University of Vienna. Out of the 183 patients approached, 11 refused to participate and 172 gave their written informed consent. Due to cognitive impairment and psychotic symptoms, 15 individuals were unable to fill out the questionnaires correctly and completely. A response rate of 85.8% (157 completed questionnaires) was achieved.

Measures

Demographic and Clinical Data. Demographic variables (such as age, gender, education, work situation, housing, and social network) and a medical history (including number of hospitalizations, age at initial episode, age at first hospitalization) were recorded with a questionnaire specifically designed for this purpose.

Internalized Stigma of Mental Illness. The ISMI Scale developed by Ritsher et al⁹ in collaboration with people with mental illnesses is a 29-item instrument with 5 sub-

scales for self-rated assessment of the subjective experience of stigma. The term “mental illness” is used throughout the questionnaire, but in the questionnaire respondents are encouraged to “think of it as whatever you feel is the best term for it.” Each item is rated on a 4-point Likert scale ranging from 1 = strongly disagree to 4 = strongly agree with higher scores indicating higher internalized stigma. The SR subscale consists of the following 5 reverse coded items: “In general, I am able to live life the way I want to,” “People with mental illness make important contributions to society,” “I can have a good, fulfilling life, despite my mental illness,” “Living with mental illness has made me a tough survivor,” and “I feel comfortable being seen in public with an obviously mentally ill person.” Further subscales are alienation (ie, “I feel out of place in the world because I have a mental illness”), stereotype endorsement (ie, “Mentally ill people tend to be violent”), discrimination experience (ie, “People discriminate against me because I have a mental illness”), and social withdrawal (ie, “I avoid getting close to people who don’t have a mental illness to avoid rejection”). The German version of the ISMI had high internal consistency with $\alpha = .92$ and high test-retest correlation with $r = .90$, and the 5-item SR subscale showed an acceptable internal consistency ($\alpha = .73$) and test-retest correlation ($r = .70$).¹⁹

Perceived Devaluation and Discrimination. The Devaluation-Discrimination Scale, which consists of 12 items, measures general social attitudes about mental illness.²⁰ Example: “Most people think less of a person who has been in a mental hospital.” Each item is rated on a 5-point Likert scale ranging from 1 = strongly agree to 5 = strongly disagree, with higher scores indicating higher stigma.

Depression. Depression was measured with the Allgemeine Depressionsskala,²¹ a German version of the widely used Center for Epidemiological Studies Depression Scale.²² This scale contains 20 items for the assessment of subjective depressive symptoms. For each item, subjects indicate how often they felt this way during the past week. Items are rated on a 4-point Likert scale coded 0 (rarely or never) to 3 (most of the time), with higher scores indicating higher depression. Validity and reliability ($\alpha = .90$) have been found to be satisfactory.²¹

Self-esteem. A revised German version of Rosenberg’s Self-esteem Scale has recently been tested for validity.²³ This scale contains 10 items that are to be answered with 4 possible statements (4 = fully applies to me, 1 = does not apply to me), eg, “I think I am a person of worth, at least on an equal plane with others.”

Empowerment. The Rogers Empowerment Scale was developed from the perspective and with the help of ser-

vice users and has strong psychometric properties.^{24,25} The scale consists of 28 items that are rated on a 4-point scale (1 = I completely disagree to 4 = I fully agree). A higher total score represents a higher sense of empowerment. Empowerment has 5 different dimensions: (1) self-efficacy-self-esteem (ie, “I generally accomplish what I set out to do”), (2) power-powerlessness (ie, “I feel powerless most of the time”), (3) community activism (ie, “People have the right to make their own decisions, even if they are bad ones”), (4) optimism-control over the future (ie, “People are limited only by what they think possible”), and (5) righteous anger (ie, “Getting angry about something is often the first step toward changing it”). The German version of the Rogers Empowerment Scale has been used in populations with neurologic and psychiatric problems.²⁶

Quality of Life. The World Health Organisation Quality of Life-BREF (WHOQOL-BREF) is a valid and reliable 26-item scale based on the WHOQOL-100 QOL assessment and was developed as an abbreviated version of the latter.²⁷ The instrument measures overall QOL and general health, as well as 4 distinct QOL domains, covering the areas physical health (pain, energy, sleep, mobility, activities, medication, work), psychological health (positive and negative feelings, concentration, esteem, body image, spirituality), social relationships (relationships, support, sex), and environmental aspects (safety, home, finances, services, information, leisure, environment, transport). Interviewees respond to the items on a 5-point Likert scale. The mean domain and overall QOL scores are transformed into a WHOQOL-100 comparable value range of 0–100. The German version²⁸ was used in this survey.

Statistical Analyses

SPSS version 15.0 was used for statistical analyses. All variables were tested for normality. If data distributions were nonparametric, equivalent nonparametric tests were used. Descriptive analyses were conducted for study group characteristics and stigma measures. To test the extent to which the SR construct was distinct from the internalized stigma construct, a principal component analysis with varimax rotation of the ISMI items was performed. To specify the hypothesized multidimensionality of the ISMI Scale, 4 different criteria for the component extraction were used. By default, SPSS uses only Kaiser criterion to extract components, which includes all components with an eigenvalue greater than 1. Additionally, the scree plot was regarded.²⁹ These 2 highly popular decision rules are certainly problematic.^{30,31} “Fortunately, there is increasing consensus among statisticians that two less well-known procedures, parallel analysis and Velicer’s minimum average partial (MAP) test, are superior to other procedures and typically yield optimal solutions to the number of components problem.³²” Parallel analysis and MAP of

the ISMI items were calculated with SPSS using the syntax written from O’Connor.³² Two different findings were examined. Component loadings greater than 0.40 were declared statistically significant.³³ Correlations (Pearson and Spearman) were used to compare the relationship of SR with stigma measures and other constructs. Univariate regression and univariate analysis of variance (as appropriate) were performed to explore the relationship of demographic and clinical variables with SR. Furthermore, a covariance analysis including the variables that were statistically significant in the univariate analyses, controlling for age, gender, and education, was conducted on the SR subscale to determine whether variables accounted for independent variance in the corresponding variable. As there is no QOL total score, the QOL subscale with the highest correlation with SR (=QOL psychological) was integrated in the model. The dependent variable was SR; the independent variables included were age, gender, education, patient status, family status, social network, and perceived devaluation and discrimination, as well as the latent variable feeling good comprised of depression, self-esteem, empowerment, and psychological QOL (see below).

Results

Study Group

Demographic and clinical characteristics are shown in table 1. Participants were typical for the schizophrenia population and showed considerable social and vocational impairments: They were mostly single, almost half of them living alone, only about a quarter having a partner, and hardly anyone having paid work. Likewise, their results on QOL scores are between 50 and 65 on the WHOQOL-BREF domains.^{34–36} Their results on self-esteem (mean = 17.6) and perceived devaluation-discrimination (mean = above the midpoint) are also typical for a group of patients with a severe mental illness and correspond to the study of Ritsher and Phelan.¹⁸

SR and Internalized Stigma

First of all, the theoretically assumed 1-component solution of the ISMI Scale by Ritsher et al⁹ was tested, before other criteria for component extraction were regarded. With this calculation, only one item of the SR subscale had a loading greater than 0.40 (table 2). Regarding Kaiser criterion, 7 components had eigenvalues greater than 1. The scree plot suggested a 2-component solution, as did the parallel analysis. The MAP test calculated a 3-component result. Due to the fact that 2 criteria suggested 2 components and that 2-dimensionality was assumed in the theoretical considerations, a principal component analysis of the ISMI items specifying 2 components was performed (table 2). It showed 2 concepts, SR and internalized stigma. All items sorted onto the expected component. The calculation of a 3-component

Table 1. Demographic and Clinical Characteristics

	<i>n</i> = 157
Age (y), mean (SD)	37.3 (11.9)
Sex, <i>n</i> (%)	
Female	72 (45.5)
Male	85 (54.5)
Race, <i>n</i> (%)	
White	157 (100)
Family status, <i>n</i> (%)	
Single	119 (75.8)
Married or living in partnership	14 (8.9)
Divorced or separated	21 (13.4)
Widowed	3 (1.9)
Having a partner, <i>n</i> (%)	37 (23.7)
Number of friends, mean (SD)	4.6 (5.0)
Social network, <i>n</i> (%)	
No or little social contacts	13 (8.3)
Few acquaintances	16 (10.2)
Few close friends	51 (32.5)
Sufficient friends and acquaintances	77 (49.0)
Living alone, <i>n</i> (%)	75 (47.8)
Level of education at least high school, <i>N</i> (%)	58 (36.9)
Paid work, <i>n</i> (%)	4 (2.5)
Diagnosis, <i>n</i> (%)	
Schizophrenia	111 (70.7)
Schizoaffective disorder	46 (29.3)
Patient status, <i>n</i> (%)	
Inpatient	42 (26.8)
Day clinic care	39 (24.8)
Outpatient	76 (48.4)
Age at onset of illness, mean (SD)	23.6 (9.1)
Years of illness, mean (SD)	13.6 (10.6)
Number of hospitalizations, mean (SD)	5.5 (5.5)

solution, according to the MAP test, which is not included in table 2, achieved the same result regarding SR as a separate construct. Again, all SR items loaded onto one component.

As shown in table 3, almost two-thirds of participants had a mean score higher than the midpoint of 2.5 of the possible range of 1–4 on the 5-item ISMI subscale SR (=high SR), and about a third had a mean higher than the midpoint on the other ISMI subscales (=high internalized stigma). The 5 subscales showed the following mean scores and SDs: SR, 2.73 (SD = 0.76); alienation, 2.28 (SD = 0.86); stereotype endorsement, 1.87 (SD = 0.63); discrimination experience, 2.16 (SD = 0.79); and social withdrawal, 2.13 (SD = 0.74).

Correlations of SR and Stigma Measures

SR was negatively correlated with the Devaluation-Discrimination Scale, and all ISMI subscales except for the subscale discrimination experience, which did not correlate with SR (table 4). Correlations of SR

with all 4 ISMI subscales measuring internalized stigma were lower compared with the correlations of these subscales to each other.

Correlations of SR With Other Parameters

Correlations of SR with other constructs are shown in table 5. As expected, SR correlated positively with self-esteem, the overall empowerment score, and all empowerment subscales apart from the subscale righteous anger, which did not correlate with SR. SR also correlated positively with all QOL domains. Depression was negatively associated with SR.

SR and Demographic and Clinical Variables

Univariate regression and variance analyses were performed to explore the relationship of demographic and clinical variables with SR. Sex, age, living situation, work status, level of education, diagnosis, number of hospitalizations, age at onset of illness, age at first admission, and years of illness had no significant impact on SR. Significant associations were found for social network, family status, and patient status (outpatient/ inpatient/ day clinic). A social network with a sufficient number of friends ($F_{3,153} = 4.16, P < .01$), being single or married in contrast to being separated ($F_{2,151} = 4.17, P < .05$), and outpatient treatment compared with day clinic and inpatient ($F_{2,154} = 7.72, P < .001$) predicted a higher SR. In each calculation, the variances of the groups were not significantly different.

Covariance Analysis

Covariance analyses were conducted on the SR subscale to determine whether variables accounted for independent variance in the corresponding variable (table 6). Due to the fact that depression, self-esteem, empowerment, and psychological QOL were very closely related to each other ($r_s = .68-.83$), these 4 scales were added together to form the new latent variable *feeling good* (component loadings between 0.88–0.94; $\alpha = .92$). Without this computation, the findings in the covariance analysis would be difficult to interpret because one variable would be significant whereas the others, although measuring something related, would apparently have no effect on SR. Results showed that the covariate feeling good ($F_{1,133} = 22.57, P < .001$) and the variables family status ($F_{2,133} = 5.63, P < .01$) and patient status ($F_{2,133} = 3.51, P < .05$) accounted for independent variance. Social network, perceived devaluation and discrimination, and demographic variables did not account for any additional significant variance. Separated people stated that they had less contact with friends compared with respondents who were single or married ($\chi^2 = 7.88, df = 3, P < .05$), which could explain, to a minor degree, the nonsignificance—in the covariance analysis—of

Table 2. Principal Component Analysis of the ISMI Items

Items (Paraphrased)	1-Component Solution		2-Component Solution	
	1		1	2
People ignore me or take me less seriously	0.71		0.76	-0.04
I feel inferior to others	0.71		0.65	0.28
I cannot contribute anything to society	0.70		0.61	0.38
I feel out of place in the world	0.70		0.69	0.15
Cannot live a good, rewarding life	0.70		0.63	0.33
I am embarrassed or ashamed	0.69		0.66	0.20
Having a mental illness has spoiled my life	0.69		0.60	0.37
I am disappointed in myself	0.69		0.61	0.34
Nobody would be interested in getting close to me	0.67		0.62	0.23
Negative stereotypes against people with mental illness	0.66		0.67	0.08
Being around people who do not have a mental illness	0.66		0.60	0.28
I do not socialize as much as I used to	0.64		0.62	0.16
I stay away from social situations	0.62		0.60	0.16
People discriminate against me	0.62		0.68	-0.08
I need others to make most decisions	0.60		0.57	0.18
People without mental illness could not possibly understand me	0.59		0.56	0.16
Stereotypes about the mentally ill apply to me	0.58		0.62	-0.02
I avoid getting close to people who do not have a mental illness	0.57		0.62	-0.04
People often patronize me	0.57		0.68	-0.20
Others think that I cannot achieve much in life	0.50		0.56	-0.09
People can tell that I have a mental illness	0.47		0.43	0.19
Mentally ill people should not get married	0.44		0.38	0.25
I do not talk about myself much	0.38		0.41	-0.03
Mentally ill people tend to be violent	0.27		0.28	0.02
I can have a good, fulfilling life	0.43		0.17	0.83
In general, I am able to live life the way I want to	0.37		0.13	0.73
Important contributions to society	0.33		0.13	0.65
I feel comfortable being seen in public	0.20		0.04	0.47
Mental illness has made me a tough survivor	0.01		-0.19	0.58
Explained variances per component (%)	32.51		29.94	11.25
Total sum of explained variances (%)	32.51			41.19

Note: ISMI, Internalized Stigma of Mental Illness; principal component analysis, varimax rotation.

social network. The homogeneity of variance assumption was not broken. Thirty-eight percent of the total variance (adjusted $R^2 = .32$) was explained by the whole model.

Discussion

The subscale SR measures the “experience of resisting or being unaffected” by stigmatizing attitudes.⁹ In this study, more than two-thirds of participants showed high SR,

a percentage twice as high as in previous studies.^{9,16} This could be due to the constitution of Ritscher et al⁹ and Lysaker et al¹⁶ study groups with mostly male Veteran Affairs outpatients, who as a group may have particular issues with regard to coping with the stigma of mental illness. This question has, however, not yet been specifically addressed in stigma research.

As expected, SR correlated negatively with all stigma measures including the Devaluation-Discrimination Scale. The only exception was the ISMI subscale discrimination

Table 3. Number of Persons With High Levels of SR and Internalized Stigma (Mean Score Higher Than the Midpoint)

	<i>N</i> = 157
ISMI subscales	
SR	99 (63.3%)
Alienation	69 (43.9%)
Stereotype endorsement	24 (15.2%)
Discrimination experience	59 (37.6%)
Social withdrawal	53 (33.8%)

Note: ISMI, Internalized Stigma of Mental Illness.

experience, which did not correlate significantly with SR. These results indicate that a lesser extent of internalized stigma and being unaware or denying stigmatizing public beliefs might be protective, while the belief that others actually treat one differently might not exert much influence on SR. Though unexpected, this latter finding has already been reported previously.¹⁶ Discrimination experience might affect the SR of some patients negatively, but others might feel challenged by discriminating behavior, which may even strengthen their SR. Another possibility is that SR makes one less vulnerable to internalize stigmatizing beliefs, while it does not show any influence on the actual experience of discrimination, which is probably mainly influenced by environmental factors.

Inpatients and day clinic patients showed lower SR than outpatients. This could be due to hospitalization itself. Being in a hospital represents a clear break with normal life, possibly implying loss of autonomy and self-determination. Another possibility for the lower SR of hospital patients could be their more acute symptomatology. However, Lysaker et al¹¹ found no relationship between severity of psychopathological symptoms and SR. Though our study does not contain data on symptom severity, we did find that all other clinical variables did not show any association with SR. A third explanation could be that people with low SR seek more help including hospitalization.

As could be expected, individuals with a high sense of empowerment showed high SR. A notable exception concerns

the empowerment subscale righteous anger, which did not correlate significantly. This might indicate SR being a quality independent of a specific response to perceived injustice.

Other factors indicative of high SR in our study were protective factors like having a sufficient number of friends, being single or married in contrast to being separated, as well as high self-esteem and empowerment, high QOL, and not being depressed. Due to measurement overlap between empowerment and QOL²⁵ and QOL and depression³⁷ and due to the fact that depression, self-esteem, empowerment, and QOL were clearly related to each other, the newly designed latent variable feeling good has been integrated into the covariance analysis. The whole model explained 38% of the variance, and the variables outpatient status, being single or married, and feeling good significantly accounted for independent variance. Thus, other factors not measured in this study, such as personality structures, might also influence stigma-resisting attitudes. Also, it would be interesting to consider SR as an independent variable in designs investigating determinants of the above mentioned variables, ie, social life and well-being.

SR emerged as a separate construct in this study. This is in line with previous studies,^{9,11} where the subscale SR was not included in ISMI total score for further analysis “given its relatively weak correlation to the other four scales and with the item total.¹¹” People might have a self-determined and fulfilling life despite their mental illness and despite internalized stigma. SR is also distinguishable from self-esteem, empowerment, and QOL. Similar to these constructs, SR represents a positive attitude to life and personal strength but includes a clear reference to mental illness.

This study is exploratory and has several limitations with the main limitation being the measurement of SR: All SR items are phrased in a positive direction, contrary to the other ISMI items. It is possible that the different formulation has an effect on the response behavior.³⁸ Further research should focus on the development of a more robust measure of SR, possibly extending the range of measurements, eg, toward the impact of community activism on SR. Secondly, even though participants came from

Table 4. Spearman Correlations of SR and Stigma Measures

	SR	Alienation	Stereotype Endorsement	Discrimination Experience	Social Withdrawal
Alienation	−0.365*	1			
Stereotype endorsement	−0.365*	0.738*	1		
Discrimination experience	−0.156	0.638*	0.643*	1	
Social withdrawal	−0.264*	0.758*	0.662*	0.703*	1
Devaluation-Discrimination Scale	−0.255*	0.392*	0.366*	0.567*	0.382*

Note: SR, stigma resistance.

**P* < .01.

Table 5. Correlations of SR With Other Constructs ($n = 157$)

	SR
Depression	-.460 ^{a*}
Self-esteem	0.508 ^{a*}
Empowerment overall score	0.502 ^{b*}
Empowerment self-efficacy—self-esteem	0.521 ^{a*}
Empowerment power—powerlessness	0.269 ^{b*}
Empowerment community activism	0.259 ^{a*}
Empowerment optimism—control over the future	0.398 ^{b*}
Empowerment righteous anger	0.013 ^b
QOL global	0.450 ^{b*}
QOL physical	0.448 ^{b*}
QOL psychological	0.535 ^{b*}
QOL social	0.368 ^{b*}
QOL environmental	0.352 ^{b*}

Note: SR, stigma resistance; QOL, quality of life.

^aSpearman correlation.

^bPearson correlation.

* $P < .01$.

different treatment settings, they may not be representative of all people with schizophrenia. As stated above, data on psychopathology are missing, but demographic and clinical characteristics, self-esteem, QOL, and perceived devaluation-discrimination are typical for patients with severe mental illness.^{18,34–36} However, patients in an acute state of illness and lacking capacity to consent, as well as patients without complex needs for care may be under-represented. Thirdly, the cross-sectional design of the study does not allow drawing conclusions about causality.

In our study, a substantial proportion of participants, one-third, had low SR, and in other studies this percentage was even higher.^{9,15,16} Working on stigma-resisting beliefs might help patients to find a fulfilling life despite a mental illness. This might improve their well-being and contribute to their recovery. Also, because public stigma of mental illness will be present even in the future,⁷ tailored therapeutic interventions to reduce the devastating effects of stigma might be more successful when focusing primarily on the development of SR and secondly on the battle against stigmatizing beliefs.

SR is a new and promising concept, which can be easily embedded into the bigger current scientific research of resilience, ie, an individual's ability to withstand and bounce back from stress and adversity.^{39,40} Further research should focus on the development of a robust scale for the assessment of SR to prove its value as an independent variable, as well as an outcome variable of public health action and individual therapeutic interventions in mental health care.

Table 6. Covariance Analysis on SR and Appropriate Independent Variables, Dependent Variable = SR

	Sum of Squares	df	Mean Square	F	Significance
Adjusted model	32.082 ^a	12	2.673	6.690	.000
Constant term	3.251	1	3.251	8.134	.005
Feeling good	8.752	1	8.752	21.900	.000**
Devaluation-discrimination	0.025	1	0.025	0.062	.804
Patient status	2.673	2	1.336	3.344	.038*
Family status	4.491	2	2.246	5.619	.005**
Social network	0.392	3	0.131	0.327	.806
Gender	0.846	1	0.846	2.116	.148
Age	0.247	1	0.247	0.619	.433
Education	0.022	1	0.022	0.056	.813
Error	52.354	131	0.400		
Total	1161.734	144			
Adjusted variation	84.436	143			

Note: SR, stigma resistance.

^a $R^2 = 0.380$ (adjusted $R^2 = 0.323$).

* $P < .05$, ** $P < .01$.

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