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SHORT COMMUNICATION

# Self-stigma as a barrier to recovery: a longitudinal study

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**Abstract** Stigma limits life opportunities of persons with mental illness. Self-stigma, the internalization of negative stereotypes, undermines empowerment and could hinder recovery. Here we examined self-stigma's effect on recovery among 222 disability pensioners with mental illness over 2 years, controlling for age, gender, symptoms and recovery at baseline measured by the Recovery Assessment Scale. More self-stigma at baseline was associated with a significant decrease in recovery after 1 year (not significant after 2 years). An increase of self-stigma from baseline to follow-up predicted less recovery 1 and 2 years later. Interventions that reduce self-stigma could therefore improve recovery.

**Keywords** Mental illness · Self-stigma · Recovery

## Introduction

Persons with mental illness are not only distressed by symptoms, but by stigma that inhibits their life opportunities. Stereotypes, prejudice and discriminating behaviours among the public (=public stigma) lead to inequalities in employment, housing and treatment availability as well as social exclusion of individuals with mental illness [1]. Another harmful facet of mental illness stigma is self-stigma, the internalization of stereotypes, which diminishes self-esteem, self-efficacy and self-respect. As a consequence individuals with mental illness may lose hope and question their worthiness and capability to pursue recovery goals [2]. Recovery from mental illness has been described as an individual process, not limited to symptom reduction but including the empowerment to live a self-determined and fulfilling life [3]. Undermining empowerment and diminishing self-efficacy, self-stigma may be a major threat to recovery. Previous cross-sectional studies found self-stigma to be negatively associated with recovery [2, 4–6]. Self-stigma was also shown to be associated with recovery-related variables, such as low self-esteem, poor quality of life, reduced empowerment, hopelessness and increased psychiatric symptoms [7]. One longitudinal study found baseline stigma levels to predict recovery 6 months later but did not measure self-stigma [8]. Being modifiable by interventions [9], self-stigma could be addressed to foster recovery. In addition to programs decreasing self-stigma using psychoeducation, narrative approaches or peer-support [9], interventions to reduce public stigma are likely to also decrease self-stigma [10]. To provide robust empirical evidence for self-stigma's effect on recovery, longitudinal evidence is needed. Controlling for baseline recovery and symptom levels, we expected that: (1) more self-stigma at baseline or (2) an increase in self-stigma from baseline to follow-up would predict less recovery 1 and 2 years later.

## Methods

### Design and participants

Two-hundred and fifty persons participated in a two-arm randomized controlled trial (ISRCTN54951166, Zurich

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integration pilot project; http://www.zhepp.ch) testing the efficacy of supported employment (individual placement and support, IPS) to re-integrate disability pensioners with mental illness into competitive employment (i.e. jobs in the free labour market) [11, 12]. Persons were eligible to participate if they lived in the Canton of Zurich, Switzerland, were 18–60 years old, in psychiatric/psychotherapeutic treatment, received disability pensions due to mental illness for no more than 1 year, and sought competitive employment. After providing written informed consent, participants were randomly assigned to the intervention (IPS) or treatment as usual (TAU). Participants were followed over 2 years and self-stigma and recovery were assessed at baseline as well as after 1 and 2 years. After excluding individuals with missing data, at baseline 222 individuals remained for analyses, 168 individuals after 1 year, and 155 after 2 years. To control for potential intervention effects we included group status (IPS vs. TAU) in all regression analyses.

## Measures

For all measures higher mean scores reflected increased levels of the measured variables. Recovery was measured by the 24-item Recovery Assessment Scale [13], covering five dimensions of recovery: personal confidence and hope (e.g. "I am hopeful about my future"), willingness to ask for help (e.g. "I ask for help when I need it"), goal and success orientation (e.g. "I have goals in life that I want to reach"), reliance to others (e.g. "I have people I can count on") and no domination by symptoms (e.g. "My symptoms interfere less and less with my life"). Total mean scores from 1 to 5 were calculated (baseline: $M = 3.52$, SD = 0.59, min/max: 1.5/5.0, Cronbach's alpha: 0.87; 1-year follow-up: $M = 3.54$, SD = 0.60, min/max: 1.5/4.8, Cronbach's alpha: 0.89; 2-year follow-up: $M = 3.54$, SD = 0.64, min/max:1.0/4.8, Cronbach's alpha: 0.90). The 29-item Internalized Stigma of Mental Illness Scale (ISMI) [14] assessed self-stigma with mean scores from 1 to 4 (baseline: $M = 2.10$, SD = 0.56, min/max: 1.0/3.9, Cronbach's alpha: 0.89; 1-year follow-up: $M = 2.13$, SD = 0.56, min/max: 1.1/3.7, Cronbach's alpha: 0.90; 2-year follow-up: $M = 2.11$, SD = 0.56, min/max: 1.1/3.7, Cronbach's alpha: 0.90). Psychopathology was assessed by the Symptom Checklist-90-revised [15], yielding a Global Severity Index (GSI) as mean score across all items (baseline: $M = 1.21$, SD = 0.73, min/max: 0/3.9; 1-year follow-up: $M = 1.19$, SD = 0.68, min/max: 0/3.2; 2-year follow-up: $M = 1.08$, SD = 0.67, min/max: 0/3.3). Psychiatric ICD-10 diagnoses were obtained from participants' disability pension records with 46% diagnosed with affective disorders, 16% schizophrenia/schizoaffective disorders, 17% personality disorders and 18% other mental disorders.

## Statistical analysis

As appropriate, independent $t$ tests or Chi-square tests were used to compare completers (baseline $N = 222$; 1-year follow-up $N = 168$; 2-year follow-up $N = 155$) and non-completers regarding baseline measures. Bivariate associations between independent variables and recovery were assessed using Pearson's correlations. Finally, two sets of linear regression models (set 1: controlled for recovery at baseline; set 2: additionally controlled for GSI, age, gender and group status) tested the association between self-stigma at baseline or self-stigma change scores (calculated as: score at 1 or 2-year follow-up—score at baseline, positive difference scores indicating an increase of self-stigma over time) and recovery 1 and 2 years later.

## Results

Completers and non-completers did not differ significantly regarding baseline measures (recovery, self-stigma, GSI, age, gender, group status; all $p > 0.20$). At baseline, participants were on average 43 years old (range 19–60, $M = 42.8$, SD = 10.3) and evenly distributed in terms of gender (female: $n = 117$, 53%; male: $n = 105$, 47%) and group status (IPS: $n = 113$, 51%; TAU: $n = 109$, 49%). Age, gender and group status were not significantly associated with recovery at any assessment point (all $p > 0.10$). Self-stigma and GSI at baseline were significantly (all $p < 0.001$) and negatively associated with recovery at baseline ($r = -0.58$, $r = -0.53$, respectively), 1-year follow-up ($r = -0.58$, $r = -0.50$, respectively) and 2-year follow-up ($r = -0.43$, $r = -0.37$, respectively).

Controlling for GSI, age, gender and group status, more self-stigma at baseline predicted less recovery at baseline and after 1 year. After 2 years, this negative effect of baseline self-stigma on recovery was no longer significant. On the other hand, an increase of self-stigma from baseline to follow-up was negatively related to recovery 1 and 2 years later (Table 1).

## Discussion

As hypothesised and consistent with previous cross-sectional studies [2, 4–6] our findings provide first evidence of a longitudinal and potentially causal relationship between self-stigma and recovery. The association between baseline self-stigma and follow-up recovery was limited to about 1 year. This may be due to successful coping of some individuals when self-stigma does not increase over time. Accordingly when change scores were analysed, an increase in self-stigma from baseline to follow-up led to significantly less recovery 1

**Table 1** Linear regression models predicting recovery at baseline as well as after 1 and 2 years

| | Independent variables | Dependent variables | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Recovery baseline ($n = 222$) | | | Recovery 1-year follow-up ($n = 168$) | | | Recovery 2-year follow-up ($n = 155$) | | |
| | | $\beta$ | 95%CI | $R^2$ | $\beta$ | 95%CI | $R^2$ | $\beta$ | 95%CI | $R^2$ |
| Set 1 | Recovery at baseline | – | | 0.33** | 0.56** | 0.43 to 0.68 | 0.54** | 0.59** | 0.46 to 0.78 | 0.42** |
| | Self-stigma at baseline | −0.58** | −0.73 to −0.50 | | −0.25** | −0.41 to −0.14 | | −0.09 | −0.27 to 0.07 | |
| | Recovery at baseline | – | | – | 0.73** | 0.63 to 0.83 | 0.56** | 0.67** | 0.59 to 0.82 | 0.54** |
| | Self-stigma change scores | – | | | −0.25** | −0.65 to −0.27 | | −0.36** | −0.77 to −0.42 | |
| Set 2[a] | Recovery at baseline | – | | 0.39** | 0.53** | 0.39 to 0.66 | 0.54** | 0.59** | 0.45 to 0.78 | 0.43** |
| | Self-stigma at baseline | −0.42** | −0.59 to −0.30 | | −0.21* | −0.39 to −0.07 | | −0.09 | −0.29 to 0.10 | |
| | Recovery at baseline | – | | – | 0.63** | 0.51 to 0.75 | 0.58** | 0.64** | 0.54 to 0.81 | 0.57** |
| | Self-stigma change scores | – | | | −0.25** | −0.64 to −0.27 | | −0.38** | −0.79 to −0.44 | |

$\beta$ standardized linear regression coefficient, *CI* confidence interval for B (unstandardized regression coefficient)

*$p < 0.01$, **$p < 0.001$

[a]Controlled for GSI, age, gender and group status [IPS vs. TAU]

and 2 years later. Our findings therefore indicate that recovery from mental illness could be improved by interventions supporting persons with mental illness to cope with self-stigma soon after a first psychiatric diagnosis [9]. Self-stigma could be reduced both at an individual level [9, 16, 17] and by addressing public stigma [10, 18].

Strengths and limitations of our study need to be briefly considered. Recovery was assessed by a well-established scale. Data were derived from a sample of disability pensioners, a hard-to-reach population, therefore generalizability is limited. To enhance understanding of the nature of the relationship between stigma and recovery, potential mediators (e.g. self-esteem) and the role of public stigma variables (perceived, experienced and structural discrimination) should be examined. For example, as societal stigma is the root of self-stigma [2], it could have both indirect and direct effects on recovery. If our findings are replicated, self-stigma interventions could be integrated in programs to enhance recovery.

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