



Between self-clarity and recovery in schizophrenia: reducing the self-stigma and finding meaning

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Abstract

Although there are extensive theoretical reviews regarding the self-experience among persons with schizophrenia, there is limited research that addresses the implications of self-clarity on the recovery of persons with schizophrenia while exploring the role of possible mediators within this process. Accordingly, the current study explored the relationship between self-clarity and recovery while examining the possible mediating role of self-stigma and sense of meaning in life. 80 persons with schizophrenia or schizoaffective disorder were administered four scales: self-concept clarity, self-stigma, meaning in life, and recovery. Results confirmed the hypothesized model in which self-clarity affects self-stigma, self-stigma affects meaning in life, and meaning in life affects recovery. No direct relationship was uncovered between self-clarity and recovery. Implications of the current study for future research and clinical practice are discussed with the emphasis on the importance of the self-experience with regard to the process of recovery.

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1. Introduction

Schizophrenia is often conceptualized as a disorder that involves disruption in the experience of the self [1–3]. Deficits in the ability to make sense of the experience of self and to create a coherent narrative are thought to impede recovery [4–6]. Central to the understanding of the experience of the self in schizophrenia is self-clarity, which refers to the level of clarity, consistency, and confidence one has with regard to his or her beliefs about the self [7,8].

While there are extensive theoretical reviews regarding self-experience among persons with schizophrenia [e.g. 1,5], there has been relatively little research on the implications of self-clarity on recovery and possible mediators within this process. Bigler et al. [7] reported that, among an inpatient psychiatric population, self-clarity was associated with better psychological adjustment. Interestingly, a recent study on self-clarity and schizophrenia conducted with outpatients

showed that, while self-clarity was associated with higher quality of life, it was also associated with higher levels of symptomatology [9]. Based on this finding, Weinberg et al. [9] suggested that self-clarity may act as a 'two-edge sword' which may both enhance self-focused attention but also increase subsequent symptomatology.

The potential association between self-clarity and self-stigma is also of interest. Beliefs about self among persons with schizophrenia are often associated with the internalization of stigmatizing negative social attributions of mental illness. This phenomenon, defined as self-stigma or internalized stigma, refers to the acceptance of social negative stereotypes of mental illness and applying them to one self [10–12]. Studies have shown that self-stigma is associated with various negative implications such as decreased self-esteem, empowerment and hope [13–16]. While previous research has not examined the association between self-clarity and self-stigma, self-clarity was found to be negatively related to perceived exposure to stigma [17].

Another construct of importance in self-experience is sense of meaning in life. Recently, it has been shown that

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Fig. 1. Hypothesized Model Of Mediation.

self-stigma is associated with low sense of meaning in life [18] which refers to one's assessment of personal goals and values [19]. Thus, it seems that persons with schizophrenia who suffer from self-stigma are less likely to experience meaning in life. Notably, recapturing meaning in life is considered a central important part of the recovery process [19,20].

Based on the above reviewed literature, we hypothesized that self-clarity is an aspect of self-experience which would impact self-stigma. We also hypothesized that, consistent with previous research, self-stigma would impact meaning in life and that meaning in life would be associated with subjective recovery. We tested these hypotheses using a mediation model, presented in Fig. 1, in which self-clarity affects self-stigma, self-stigma affects meaning in life, and meaning in life affects recovery. According to the model we hypothesized that 1) self-clarity will be negatively related to self-stigma; 2) Self-stigma will be negatively related to meaning in life; 3) Self-clarity will be positively related to meaning in life; 4) Controlling for self-stigma will reduce the relation between self-clarity and meaning in life; 5) Self-stigma will be negatively related to recovery; 6) meaning in life will be positively related to recovery; and 7) Controlling for meaning in life will reduce the relation between self-stigma and recovery.

2. Methods

2.1. Research Setting

Research participants were administered four scales (self-concept clarity, self-stigma, meaning in life, and recovery) by a clinical psychologist trainee. The study was conducted at various "Enosh" (an Israeli nonprofit mental health association) rehabilitation agencies which provide psychiatric rehabilitation services in such areas as housing, employment and leisure. Ethical approval for the study was obtained from the local ethics committee of the Department of Psychology at Bar-Ilan University. After receiving a detailed explanation of the study, all participants provided written informed consent.

2.2. Participants

Eighty persons, whose ages ranged from 22 to 66 years ($M = 44.0$, $SD = 11.3$) with a diagnoses of schizophrenia or schizoaffective disorder, participated in the study. Inclusion criteria were fluency in Hebrew and providing informed consent. The majority of the participants were men (54%), never been married (55%) and at least completed high school

(89%). Mean age during first hospitalization was 25.0 ($SD = 9.0$) and mean number of previous hospitalizations was 5.6 ($SD = 6.1$).

2.3. Measures

2.3.1. The Self-Concept Clarity scale (SCC)

The Self-Concept Clarity scale [8] was used in order to examine the extent of clarity, consistency and stability in one's self-beliefs. The SCC has 12 items, rated on a 5-point Likert scale ranging from 1 (highly disagree) to 5 (highly agree). High scores indicate high clarity. The authors of SCC reported an alpha Cronbach of 0.86, indicating high internal consistency reliability, and test-retest reliability of 0.79 and 0.7 over a period of 4 and 5 months, respectively [8]. In the present study, internal consistency (Cronbach's alpha) was .84.

2.3.2. The Internalized Stigma of Mental Illness Scale (ISMI)

ISMI [21] is a 29-item self-report scale designed to assess an individual's personal experience of stigma related to mental illness that is rated on a four-point Likert scale. Its Hebrew translation showed high internal consistency [18,22]. Higher total scores in this scale are indicative of higher levels of self-stigma. The ISMIS is devised into 5 subscales: alienation (feelings of being a devaluated member of the community), stereotype endorsement (agreement with negative ideas about people with mental illness), discrimination experience, social withdrawal, and stigma resistance. Previous research has reported satisfactory internal consistency ($\alpha = .90$) and test-retest reliability ($r = .92$) [21]. The stigma resistance subscale was excluded as it has been found to lack internal consistency and to be poorly correlated with the other ISMI subscales [23]. In our sample we observed a high level of internal consistency for the ISMI as a whole ($\alpha = 0.92$). Cronbach's alphas for the four sub-scales were .78, .80, .81 and .74 for Alienation, Stereotype endorsement, Social withdrawal and Discrimination experience respectively.

2.3.3. Meaning in life questionnaire (LRI)

The Life Regard Index (LRI) was used to measure a sense of meaning in life [24]. The LRI has two sub-scales: fulfillment (FU) and framework (FR), which refer to the fulfillment of life goals and to having and progressing toward personal goals and having a framework or perspective from which life goals can be derived and viewed. The questionnaire includes 28 items rated on a Likert scale ranging from 1 (highly disagree) to 5 (highly agree). Half the items are phrased in negation. The authors of the questionnaire [24]

reported high re-test reliability ($r = 0.94$). Others have reported high internal consistency reliability (Index = 0.8, FR = 0.79, FU = 0.87 [26]). Findings on the construct validity of the two factors (FU, FR) are controversial. Some support a two-factor division [25–27], and others suggest there is one factor [28]. Studies using the Hebrew version of the scale [e.g. 8,29] showed internal reliability of 0.90 of a single factor excluding 2 items. In the present study, internal consistency (Cronbach's alpha) was .90.

2.3.4. The Recovery Assessment Scale (RAS)

The Recovery Assessment Scale [30] was used to assess subjective recovery from severe mental illness. The original RAS includes 41 items assessing one's perception of recovering from a mental illness. Participants are asked to rate statements on a 5-point Likert scale ranging from 1 (highly disagree) to 5 (highly agree). The RAS is correlated with measures of self-esteem, empowerment, and quality of life [31]. In the current study, the abbreviated 12-item Hebrew version was used [32]. It includes 4 of the original 5 factors, namely, self-confidence and hope (Cronbach's alpha = 0.72), readiness to ask for help (Cronbach's alpha = 0.91), relying on others (Cronbach's alpha = 0.66), and lesser symptom dominance (Cronbach's alpha = 0.70). In the present study, Cronbach's alphas were .76, .71, .55 and .75 for self-confidence and hope, readiness to ask for help, relying on others and lesser symptom dominance, respectively.

2.4. Data analysis

Analyses were computed using the Predictive Analytics SoftWare (PASW, Version 18.0; [33]). After exclusion of respondents who supplied incomplete data, the analysis was calculated on 78 responses. Missing values were 2.5% and were not replaced. We examined the normality of the distributions of the variables by using the Kolmogorov–Smirnov test (K–S test; [34]). The results of this test

indicated that the distributions of these measures were relatively normal ($p > 0.05$).

First, to explore the relationships between all variables, we performed Pearson correlations. Second, to examine the mediation hypotheses, we performed linear regression analysis [35] and the Sobel test [36]. Significance was set at the .05 level, and all tests of significance were two-tailed.

3. Results

3.1. Relationship between the variables

Correlations between self-clarity, self-stigma, meaning in life, and recovery are reported in Table 1. As can be seen, there was a significant negative correlation between self-clarity and self-stigma ($r = -.38, p < .001$), between self-stigma and meaning in life ($r = -.64, p < .001$) and between self-stigma and recovery ($r = -.45, p < .001$). In addition, a significant positive correlation was found between self-clarity and meaning in life ($r = .42, p < .001$) and between meaning in life and recovery ($r = .60, p < .001$). There was no significant correlation between self-clarity and recovery ($r = .11, p > .05$). To test for the potential problem of multicollinearity, we checked the variance inflation factor (VIF) for each independent variable (self-clarity, internalized stigma, meaning in life) and found that the highest VIF value was 1.86, which suggests that multicollinearity was not likely to present an issue in the analysis [37].

3.2. Testing the hypothesized mediation model

In order to test the mediation model, we used linear regression analysis [35]. The analysis was performed in two steps. At the first step, we tested if self-stigma mediated the relation between self-clarity and meaning in life. At the second step, we tested if meaning in life mediated the

Table 1
Pearson correlations, Means, SDs, and possible ranges of the variables.

	1	2	3	4	5	6	7	8	9	10	11	12	M (SD)	Range
1. SCC	1												3.10 (0.82)	1–5
2. ISMI-Total Scale	-.38***	1											2.23 (0.58)	1–4
3. ISMI-Alienation	-.36**	.88***	1										2.44 (0.72)	1–4
4. ISMI-Stereotype endorsement	-.33**	.83***	.58***	1									1.98 (0.61)	1–4
5. ISMI-Social withdrawal	-.34**	.87***	.74***	.62***	1								2.22 (0.70)	1–4
6. ISMI-Discrimination experience	-.25*	.84***	.70***	.63***	.62***	1							2.35 (0.65)	1–4
7. LRI	.42***	-.64***	-.58***	-.52***	-.57***	-.55***	1						3.22 (0.64)	1–5
8. RAS-Total Scale	.11	-.45***	-.36**	-.42***	-.36**	-.42***	.60***	1					3.77 (0.57)	1–5
9. RAS-hope	.15	-.47**	-.28**	-.52***	-.38***	-.45***	.53***	.74***	1				3.83 (0.87)	1–5
10. RAS-help	.00	-.17	-.09	-.25*	-.18	-.05	.32**	.60***	.36**	1			4.11 (0.78)	1–5
11. RAS-others	-.01	-.29**	-.30**	-.23*	-.20*	-.27**	.32**	.65***	.30**	.33**	1		3.95 (0.78)	1–5
12. RAS-symptoms	.10	-.19*	-.22*	-.09	-.14	-.26*	.35**	.60***	.25*	-.01	.13	1	3.17 (1.06)	1–5

SCC: Self-Concept Clarity; ISMI: Internalized Stigma of Mental Illness; LRI: Life Regard Index; RAS: Recovery Assessment Scale.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

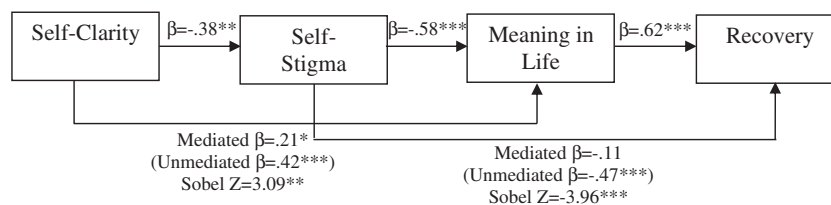


Fig. 2. Results for linear regression analyses and Sobel tests for the mediation hypotheses. * $p < .05$, ** $p < .01$, *** $p < .001$.

relation between self-stigma and recovery (when controlling for clarity). We used the total scale (mean of all the items) for all the variables.

3.2.1. Self-stigma as mediating between self-clarity and meaning in life

First, we investigated the direct effect of self-clarity on meaning in life. A significant positive correlation was found between these two variables ($\beta = .42$, $p < .001$). We then conducted a regression to test whether self-clarity predicts self-stigma. A significant negative correlation was found ($\beta = -.38$, $p < .01$). Further, we performed linear regression analysis to test whether self-clarity and self-stigma predict meaning in life. Results of the regression revealed a significant negative correlation between self-stigma and meaning in life when controlling for self-clarity ($\beta = -.58$, $p < .001$) and a significant positive correlation between self-clarity and meaning in life when controlling for self-stigma ($\beta = .21$, $p < .05$). Even though the correlation between self-clarity and meaning in life was significant, as can be seen, it was reduced from $\beta = .42$ to $\beta = .21$ when controlling for self-stigma. The Sobel test revealed that this difference was significant ($Z = 3.09$, $p < .01$), supporting the hypothesis that self-stigma mediated the relationship between self-clarity and meaning in life (See Fig. 2).

3.2.2. Meaning in life as mediating between self-stigma and recovery

At the first stage, we tested the direct effect of self-stigma on recovery (controlling for clarity). A significant negative correlation was identified ($\beta = -.47$, $p < .001$). At the

second stage, we conducted a regression to test whether self-stigma predicts meaning in life (controlling for self-clarity). A significant negative correlation was identified ($\beta = -.56$, $p < .001$). The third stage comprised a regression to test whether self-stigma and meaning in life predict recovery (controlling for self-clarity). Results of the regression revealed a significant positive correlation between meaning in life and recovery when controlling for self-stigma (and self-clarity) ($\beta = .62$, $p < .001$) but did not reveal a significant negative correlation between self-stigma and recovery when controlling for meaning in life (and self-clarity) ($\beta = -.11$, $p > .05$). As can be seen, the correlation between self-stigma and recovery decreased from $\beta = -.47$ to $\beta = -.11$ when controlling for meaning in life (and self-clarity). The Sobel test revealed that this difference was significant ($Z = -3.96$, $p < .001$), which provides support for the hypothesis that meaning in life mediated the relationship between self-stigma and recovery (See Fig. 2).

3.3. Additional analyses: Testing a possible moderation model

As mentioned earlier, analyses showed no significant correlation between self-clarity and recovery. This finding suggests the possibility of a moderated relationship, whereby greater self-stigma and less meaning in life moderate association between self-clarity and recovery. Hierarchical regression analysis was used to evaluate this model. In this analysis, self-reported recovery was the dependent variable, self-clarity, self-stigma and meaning in life (as z scores) were the independent variables and were entered into the regression at step 1. Three interaction effects were entered at step 2: a. self-clarity \times self-stigma; b. self-clarity \times meaning in life, c. self-clarity \times self-stigma \times meaning in life. These analyses did not reveal any significant interactions, which suggest that self-stigma and meaning in life do not moderate the relation between self-clarity and recovery. Results of this analysis are summarized in Table 2.

Table 2

Hierarchical regression for the predictors of self-reported recovery (RAS total score).

Predictor Variable	B	S.E	β	R^2
Step 1: Self-clarity	-.11	.06	-.20	.41
Self-stigma	-.06	.07	-.11	
Meaning in life	.36	.07	.62**	
Step 2: Self-clarity	-.14	.07	-.25*	.42
Self-stigma	-.06	.07	-.10	
Meaning in life	.34	.07	.59**	
Self-clarity \times self-stigma	-.04	.07	-.09	
Self-clarity \times Meaning in life	-.01	.06	-.03	
Self-clarity \times self-stigma \times Meaning in life	-.03	.05	-.08	

* $p < .05$.

** $p < .001$.

4. Discussion

The growing empirical and theoretical attention to both the experience of self in schizophrenia [1,2,6] and the concept of recovery [38] calls for the need to better understand the relation between the two and identify possible mediators. Accordingly, the current study examined a

mediation model in which self-clarity affects self-stigma, self-stigma affects meaning in life, and meaning in life affects recovery.

The results of the current study support the hypothesized mediation model. Self-stigma was shown to mediate the relation between self-clarity and meaning in life, and meaning in life was shown to mediate the relation between self-stigma and recovery. However, no direct relationship was uncovered between self-clarity and recovery. These results suggest that the impact of self-clarity on recovery occurs in two stages of mediation. In the first stage, self-clarity is inversely related to self-stigma, which in turn is inversely related to one's sense of meaning and purpose in one's life (more self-stigma is associated with less meaning in life). Meaning in life, in turn, is directly related to subjective sense of recovery. The current study results are consistent with previous theoretical and empirical literature that demonstrated the importance of the experience of the self as an agent who is able to capture what is going on in his or her own mind, and has a sense of rich self that flexibly changes in accordance with updated psychological information [e.g. 39,40]. The results are also consistent with studies that showed self-stigma to be associated with such negative outcomes as decreased hopefulness, self-esteem, self-efficacy, quality of life, meaning in life, and increased shame proneness [14–16,18,22,41].

The mediating role of self-stigma between self-clarity and meaning in life may be explained by complementary theories regarding the experience of the self and self-stigma in schizophrenia. Lysaker and Lysaker [42] describe self-diminishing experiences in coping with schizophrenia. Experiencing the self as diminished or barren may put one at risk for internalizing public stigma, as one may have no alternative internal experience that can reject stigma. Thus, when one does not have a clear sense of “who I am” he or she may be more vulnerable to internalize these stigmatic attitudes. In contrast, persons with high levels of self-clarity seem less prone to internalize these public attitudes.

The “why try?” model [13] that presents a chain of self-stigma consequences, together with subjective conceptualizations of recovery [e.g. 5,6], can provide a framework for the explanation of the second mediation that was uncovered in the current study (meaning in life as a mediator between self-stigma and recovery). As proposed by the “why try?” model, self-stigma affects the motivation to pursue personal goals [13]. This avoidance from participation in various life activities may result in reduced meaning in life [18], which in turn affects the subjective experience of recovery. This proposed chain of effects is in accordance with the conceptualization of recovery as a deeply subjective journey of finding meaning and redefining oneself independent of the illness [e.g. 43].

Notably, there are limitations to the study. First, due to its cross-sectional nature no conclusions can be drawn regarding causality, and alternative explanations cannot be ruled out. For example, it might be that lack of self-stigma

enhances a clear experience of the self and not vice-versa. In addition, both the concept of meaning in life and self-clarity were assessed in the present study via a quantitative, closed-end measure. A narrative perspective might allow for a richer understanding of the experience of the self and meaning among persons with schizophrenia. Furthermore, this study did not use a symptoms assessment scale. Level of symptomatology may interact with the effects of self-clarity on the recovery process. This possibility may account for the lack of relation between self-clarity and recovery in the current sample.

Clinically, the findings of the study are in accordance with psychotherapies and interventions which focus on enhancing a coherent reflective sense of self and reducing self-stigma as a central path of the recovery process [e.g. 5,44,45].

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