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The impact of internalized stigma on the well-being of people with Schizophrenia

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ABSTRACT

Previous research has shown that the internalization of schizophrenia-related stigma is associated with a worse prognosis and more suicidal tendencies. Empirical literature suggests that affective well-being —composed of positive affect (e.g. pride, enthusiasm, vitality, inspiration) and negative affect (e.g. shame, guilt, annoyance, worry)— seems to be the key component which, when being negatively affected by internalized stigma and the subsequent deterioration of self-concept, would lead to more severe symptomatology, lower recovery, and higher risk of suicide. Thus, our aim was to delve into the process by which affective well-being is impacted by the two main dimensions of internalized stigma (stereotype endorsement and alienation), with self-esteem and self-efficacy as mediators. The model was tested by path analysis —maximum likelihood procedure— in a sample of 216 patients. Our results indicate that alienation would entail more damage than stereotype endorsement both on affective well-being and on self-concept. Findings suggest that self-esteem mediates the impact of both internalized stigma dimensions on both types of affect, and that self-efficacy mediates the impact of alienation on positive affect. It is concluded that, in clinical practice, an important effort should be made to prevent internalized stigma (especially, alienation) and to promote positive self-concept of patients (especially, self-esteem).

1. Introduction

Schizophrenia is often considered the most disabling mental disorder as well as the one with the most dramatic consequences for the quality of life and with the least prospect of recovery (Mueser & McGurk, 2004). Occasionally, it is still maintained that the total remission of schizophrenia is not possible because it is a chronic disorder (Bahorik et al., 2017) where the symptoms cannot remit, so they could only be managed or controlled ("learning to live with it"). Nevertheless, empiric literature shows that many people, thanks to psychotherapy and social support, have achieved recovery with a total remission of symptomatology, having also recovered their social and cognitive functioning without experiencing relapses (Andresen et al., 2003; Jääskeläinen et al., 2012; Liberman et al., 2002; Lysaker & Buck, 2008; Silverstein, & Bellack, 2008; Vita & Barlati, 2018). In fact, it seems that approximately the 30% of patients with schizophrenia who have followed adequate psychosocial rehabilitation programs, have recovered completely (Ralph et al., 2002). Therefore, nowadays the American Psychological Association states that people with schizophrenia can recover, making clear that psychotherapy and support are key components of effective treatments, and pointing that antipsychotic drugs cause permanent neurological damage —while is true that, although they do not cure, they can help in reducing some symptoms— (APA, 2018a). More in-depth studies have been requested on the variables that have been related to patient recovery, such as affective well-being (Ralph et al., 2002). And, in fact, recovery from schizophrenia would be closely linked to this affective part of subjective well-being. Affective well-being is understood as the frequency of experiencing positive and negative affective reactions. It has been observed that higher levels of positive affect (determination, hope, active attitude, self-confidence, willingness, being alert, feeling proud, inspired, encouraged, etc.) and lower levels of negative affect (despair, guilt, shame, fear, worry, etc.) would favour a greater and quicker recovery (Ralph et al., 2002; Yanos et al., 2010). Positive affect would facilitate coping with the disorder through constructive actions and, on the contrary, negative affect would promote inaction or destructive actions. It seems then that affective well-being is not only desirable in itself but also as an enhancer of the chances of recovery from schizophrenia; therefore it is necessary to investigate the process by which it is affected in these patients.

There are a lot of psychological factors that influence affective well-being, but those related to self-concept are among the most relevant. A

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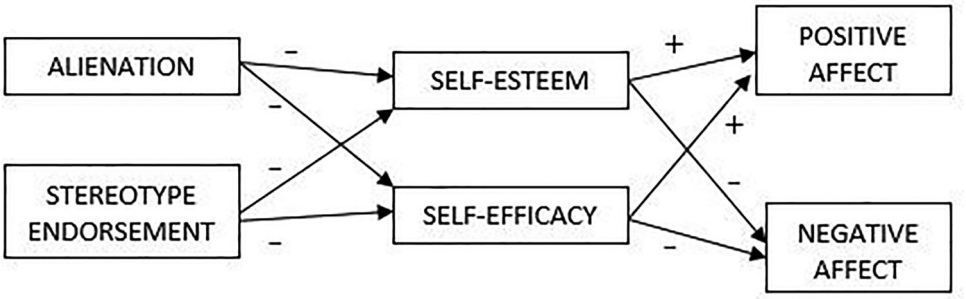

Fig. 1. Hypothesized model on the effect of internalization of stigma on well-being in people with schizophrenia.

positive view of oneself has a greater frequency of positive affects and a lower frequency of negative affects, both in the general population (Ayyash-Abdo & Alamuddin, 2007; Govindji & Linley, 2007; Sheldon et al., 2001) and in people with serious mental disorders (Morgades-Bamba et al., 2017). Self-esteem (feeling of self-worth) and self-efficacy (belief in one's own ability) are two important variables related to self-concept. In people with schizophrenia, it has been found that self-evaluation is affected by a negative bias compared to the general population (Pauly et al., 2011), and that dimensions related to competence and personal power are significantly lower than those of the general population (Garfield et al., 1987). The mere fact of being diagnosed with schizophrenia decreases self-esteem, self-efficacy and affective well-being through the *insight* (acceptance of the disease) and the phenomenon called *engulfment* (seeing oneself only in terms of the disease) (Hasson-Ohayon et al., 2006; Warner, 2013; Warner et al., 1989; Wartelsteiner et al., 2017). But the most accepted wrecker of self-esteem and self-efficacy in people with schizophrenia is internalized stigma (Corrigan et al., 2009; Corrigan & Rao, 2012; Corrigan et al., 2006; Karidi et al., 2010; Morgades-Bamba et al., 2017; Yanos et al., 2010).

Carrying the burden of being labeled as “schizophrenic” has important negative consequences in terms of self-stigmatization. Society has associated a big volume of negative stereotypes with this diagnosis, and tends to discriminate people who suffers from it. These people suffer great social discrimination and tend to internalize public stigma. But it is necessary to emphasize that, before being diagnosed, people with schizophrenia also have stereotyped beliefs and a view of what is “a schizophrenic”, so they can assign to themselves these negative stereotypes from the moment they receive the diagnosis, experiencing alienation and suffering the subsequent deterioration of their self-concept —the main and most immediate consequence of internalized stigma (Corrigan et al., 2009; Corrigan & Rao, 2012)—. This internalization of stigma impacts the life of the person in a devastating way, inasmuch as it affects indirectly a large number of relevant variables. Among these consequences we find that internalized stigma entails a deterioration of interpersonal relationships (Boyd-Ritsher et al., 2003; Yanos et al., 2010), a detriment of quality of life (Tang & Wu, 2012; Sibitz et al., 2011), and a decrease of implication in the attainment of vital goals (Corrigan et al., 2009). There is also a negative impact on the *vocational outcomes* (Yanos et al., 2010), on the strategies for coping with the disorder, on the rehabilitation engagement (Yanos et al., 2010), and on the adherence to treatment (Fung et al., 2008). Additionally, as it has been observed, internalized stigma would also entail an increase of symptoms severity (Yanos et al., 2010), a decrease of likelihood of recovery (Garay et al., 2014; Livingston & Boyd, 2010; Touriño et al., 2018) and an increment of suicide risk (Campo-Arias & Herazo, 2015; Touriño et al., 2018; Yanos et al., 2010). As it emerges from the literature, all these devastating consequences of internalized stigma would probably pass through the negativization of self-concept and its consequent impact on positive and negative affect. Thus, it seems imperative to study the process by which internalized stigma impacts affective well-being of people with schizophrenia through the deterioration of self-esteem and self-efficacy.

Five dimensions of the process of internalization of stigma of mental illness have been conceived (Boyd-Ritsher et al., 2003), namely: (a) perceived discrimination, (b) alienation, (c) stereotype endorsement, (d) social withdrawal, and (e) stigma resistance. But perceived discrimination, social withdrawal and stigma resistance would not be real *dimensions* of internalized stigma. On the one hand, perceived discrimination would be a cause or a trigger of internalization (or maybe a consequence if this discrimination is not real); and on the other hand, social withdrawal would be an aftermath of internalization (or even also a predictor or mediating variable) (Morgades-Bamba et al., 2017; Yanos et al., 2008). Regarding stigma resistance, it would be a barrier for the internalization, but not a part of the process either (Brohan et al., 2010; Lysaker et al., 2008; Sibitz et al., 2009). Thereby, alienation (feeling that, because of the diagnosis of schizophrenia, one is not a full member of society) and stereotype endorsement (assuming and applying negative stereotypes related to schizophrenia to oneself) would be the two dimensions that constitute the central core of the internalization process by implying a direct modification in the conception of oneself. In fact, alienation and stereotype endorsement have been identified as the two variables of internalization responsible for the deterioration of self-concept (Boyd-Ritsher & Phelan, 2004; Morgades-Bamba et al., 2017) and for the decrease in treatment adherence (Hajda et al., 2015).

For the first time within the literature on self-stigma among people with schizophrenia, in this work we have studied the impact of specific dimensions of internalized stigma (alienation and stereotype endorsement) on affective well-being (positive and negative affect) through self-concept variables (self-esteem and self-efficacy). The hypothesized model is based on the premise that both dimensions of internalized stigma deteriorate both dimensions of positive self-concept, which in turn impact both dimensions of affective well-being. Concretely, as it can be observed in Fig. 1, we hypothesize that alienation and stereotype endorsement are negatively related to self-esteem and self-efficacy, which are in turn positively and negatively related to positive affect and negative affect respectively.

2. Method

2.1. Participants

Two hundred and sixteen people (155 men and 61 women) aged 23 to 70 years (M = 43.93, SD = 9.28), participated in the study. They had been diagnosed with schizophrenia by their psychiatrist, and according to DSM-V criteria, between 0.5 and 46 years ago (M = 18.23; SD = 9.79). All of them were users of *support and care* Spanish associations, where they can receive occupational therapy and do artistic or leisure activities, having psychologists and psychiatrists at their disposal. The inclusion criteria were to have been diagnosed with schizophrenia, to be willing to work in the study, and not to have cognitive impairment.

Table 1
Descriptive statistics and bivariate correlations for all variables in the model.

Variables	α	*M*	*SD*	1	2	3	4	5
1. Alienation [a]	0.80	2.20	0.68	–				
2. Stereotype Endorsement [a]	0.73	1.90	0.56	.57***	–			
3. Self-esteem [a]	0.77	2.84	0.48	−0.52***	−0.40***	–		
4. Self-efficacy [a]	0.85	2.60	0.56	−0.36***	−0.28***	.57***	–	
5. Positive Affect [b]	0.88	3.19	0.84	−0.36***	−0.29***	.45***	.49***	–
6. Negative Affect [b]	0.87	2.51	0.78	.59***	.37***	−0.52***	−0.38***	−0.32***

Note.
[a] Rated on a Likert scale from 1 to 4.
[b] Rated on a Likert scale from 1 to 5.
*** $p < 0.001$.

2.2. Measures

Internalized stigma variables*:* Alienation and stereotype endorsement were measured by the two respective subscales from the Spanish validation (Muñoz et al., 2011) of the *Internalized Stigma of Mental Illness Scale* (ISMI; Boyd-Ritsher et al., 2003), which have very good feasibility and validity, being the most recommendable instruments for this aim (Brohan et al., 2010). *Alienation* subscale includes six items like "I feel inferior to others who don't have schizophrenia" (Cronbach's $\alpha = 0.83$; Morgades-Bamba et al., 2017), while *Stereotype endorsement* subscale comprises seven items like "I cannot contribute anything to society because I have schizophrenia" (Cronbach's $\alpha = 0.78$; Morgades-Bamba et al., 2017). Both subscales were rated according to a Likert scale from 1 (*strongly disagree*) to 4 (*strongly agree*).

Self-concept variables*:* Self-esteem was measured by using the Spanish validation (Expósito & Moya, 1999) of the 10-item *Rosenberg Self-esteem Scale* (Rosenberg, 1965). This scale has shown good internal consistency in people with schizophrenia (Wartelsteiner et al., 2017). It includes five positive items like "I take a positive attitude toward myself" and five negative items, whose punctuation must be reverse-coded, like "I wish I could have more respect for myself". Self-efficacy was measured using the Spanish validation (Sanjuán-Suárez et al., 2000) of the *General Self-efficacy Scale* (Schwarzer, 1992), which includes ten items like "I can manage to solve difficult problems if I try hard enough" (Cronbach's $\alpha = 0.92$; Morgades-Bamba et al., 2017). Both scales were rated according to a Likert scale from 1 (*strongly disagree*) to 4 (*strongly agree*).

Affective well-being variables*:* Positive and negative affect were measured using the Spanish validation (Sandín et al., 1999) of the *Positive and Negative Affect Schedule* (PANAS; Watson et al., 1988). PANAS has been recently shown as an unbiased instrument in schizophrenia patients, since psychosis symptom severity did not influence the reported level of negative and positive affect (Mohn et al., 2018). This instrument is composed of two subscales. *Positive affect* subscale comprises ten items like "Inspired", "Enthusiastic" or "Proud" (Cronbach's $\alpha = 0.92$; Morgades-Bamba et al., 2017) and *Negative affect* subscale includes ten items like "Hostile", "Afraid" or "Distressed" (Cronbach's $\alpha = 0.89$; Morgades-Bamba et al., 2017). Participants must punctuate the frequency with which each of the items is habitually experienced, in a Likert scale from 1 to 5 (1: *never or almost never*; 2: *rarely*; 3: *sometimes*; 4: *many times*; 5: *always or almost always*).

2.3. Procedure

Fourteen *support and care* Spanish associations for people with mental illnesses collaborated in the study. The directive boards of each entity approved the study procedure and ethics issues. Data were individually collected in a single session of approximately 30 min, in quiet rooms of the day-care centers, and at moments when participants were clinically stable (which was determined by their clinician). All participants agreed the written informed consent. They responded autonomously but they could be assisted if any clarification was needed (what happened in a few exceptions).

2.4. Statistical analyses

To test the model, path analysis was conducted in AMOS 25 (Arbuckle, 2017) using maximum likelihood estimation method. Our sample size satisfies the requirement of 10 to 20 cases per parameter (Kline, 2011). As recommended, sufficient goodness-of-fit indexes were examined for determining model fit: (a) The χ^2 statistic (which must be non-significant), (b) the goodness-of-fit index (GFI, which must be greater than 0.90), (c) the adjusted goodness-of-fit index (AGFI, which must be greater than 0.90), (d) the root mean square residual (RMR, which must be less than 0.05), (e) the comparative fit index (CFI, which must be greater than 0.90), and (f) the root mean square error of approximation (RMSEA, which must be less than 0.08) (Hu & Bentler, 1999). To study the mediations on the model, Baron and Kenny (1986) steps were followed in the way suggested by Hayes (2009) for complex models. Then, in order to determine the statistical significance of mediations, the corresponding Sobel tests were run.

3. Results

No differences were found in any variable according to sex, age or length of time diagnosed, except for a very low correlation between age and negative affect ($r = 0.16$; $p < .05$), so, in subsequent analyses, it has been controlled for this effect. As Table 1 shows, all the instruments of measurement used showed good internal consistency, and all the expected relationships between variables were met.

Data fit well the hypothesized model, as it was shown by all the goodness-of-fit indexes: $\chi^2 = 5.84$ (3) $p = .120$; GFI = 0.991; AGFI = 0.938; RMR = 0.019; TLI = 0.966; CFI = 0.993; RMSEA = 0.066. As it can be observed in Fig. 2, most of the hypothesized relations between variables are met; however, two of the eight hypothesized predictions are not. Stereotype endorsement is not shown as significantly contributing to self-efficacy, which, in turn, also does not significantly contribute to negative affect.

Results indicate that all the studied mediations are significant and partial, as we can see below. The effect of alienation on positive affect is partially mediated by self-esteem, as the standardized regression coefficient decreases from $\beta = -0.363$; $p = .000$ (total effect) to $\beta = -0.180$; $p = .011$ (direct effect), and Sobel test shows the statistical significance of this mediation ($z = -4.361$; $p = .000$). The effect of alienation on negative affect is partially mediated by self-esteem, as the standardized regression coefficient changes from $\beta = 0.585$; $p = .000$ (total effect) to $\beta = 0.432$; $p = .000$ (direct effect), and Sobel test shows the statistical significance of this mediation ($z = 4.222$; $p = .000$). The effect of alienation on positive affect is partially mediated by self-efficacy, as the standardized regression coefficient changes from $\beta = -0.363$; $p = .000$ (total effect) to $\beta = -0.217$; $p = .000$

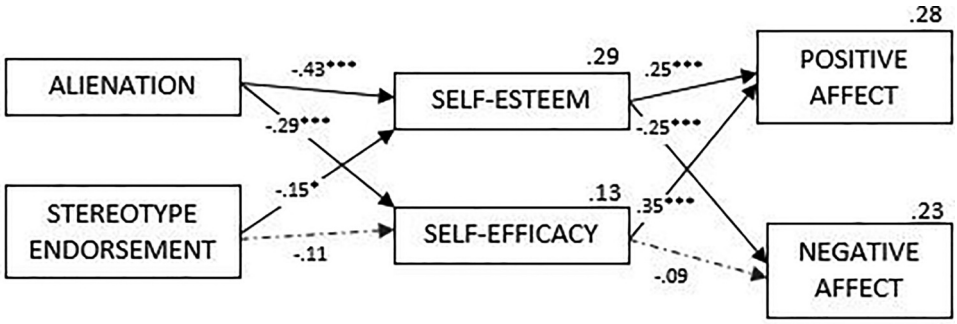

Fig. 2. Results for the model on the effect of internalization of stigma on well-being in people with schizophrenia: standardized regression coefficients and explained variance of each endogenous variable.

(direct effect), and Sobel test shows the statistical significance of this mediation ($z = -4.279$; $p = .000$).

The effect of stereotype endorsement on positive affect is partially mediated by self-esteem, as the standardized regression coefficient decreases from $\beta = -0.289$; $p = .000$ (total effect) to $\beta = -0.131$; $p = .048$ (direct effect), and Sobel test shows the statistical significance of this mediation ($z = -4.362$; $p = .000$). The effect of stereotype endorsement on negative affect is partially mediated by self-esteem, as the standardized regression coefficient decreases from $\beta = 0.373$; $p = .000$ (total effect) to $\beta = 0.196$; $p = .002$ (direct effect), and Sobel test shows the statistical significance of this mediation ($z = 4.764$; $p = .000$).

4. Discussion

People diagnosed with schizophrenia have a great obstacle to recovery which is not sufficiently addressed, i.e. the stigma. Still more complex than dealing with social stigmatization is to manage internalized stigma, which seems to greatly deteriorate self-concept (Corrigan et al., 2009; Corrigan & Rao, 2012; Corrigan et al., 2006; Karidi et al., 2010; Morgades-Bamba et al., 2017; Yanos et al., 2010), decrease the likelihood of a good prognosis for recovery (Garay et al., 2014; Livingston & Boyd, 2010; Touriño et al., 2018) and increase the risk of suicide (Campo-Arias & Herazo, 2015; Touriño et al., 2018; Yanos et al., 2010).Affective well-being —positive affect (e.g. feeling willing, enthusiastic, proud, inspired, and encouraged) and negative affect (e.g. feeling guilty, ashamed, fearful, afraid, disgusted, and worried)— is negatively affected by the internalization of stigma (Morgades-Bamba et al., 2017), and this would contribute to both the aggravation of symptoms (Yanos et al., 2010) and the increase of the risk of suicide (Johnson et al., 2008).

The objective of this study has been to test a model of the impact of the specific dimensions of internalized stigma (alienation and stereotype endorsement) on affective well-being (positive and negative affect) in people with schizophrenia, hypothesizing that self-esteem and self-efficacy are mediating this effect. The results obtained suggest that both alienation and stereotype endorsement directly contribute to the decrease of positive affect and to the increase of negative affect, even though it is worth noting that the impact of alienation appears to be greater. It has been found that self-esteem mediates the effect of both internalized stigma dimensions on both affective well-being dimensions. However, regarding the mediating role of self-efficacy, our results show that it mediates the effect of alienation on positive affect, but they do not support the rest of the hypothesized mediations.

Our results for this schizophrenia sample support that which has been previously found in people with mental disorders (Morgades-Bamba et al., 2017), but they indicate some differences. Unlike what has been found in people with various mental disorders (Morgades-Bamba et al., 2017), amongst people diagnosed with schizophrenia, we have not found either a significant effect of stereotype endorsement on self-efficacy, or of self-efficacy on negative affect. We propose two possible explanations. On the one hand, in some patients with schizophrenia it could emerge a positive self-perception as a reactive phenomenon of opposition to negative self-evaluation (Corrigan & Watson, 2002; Touriño et al., 2018), which could be skewing the results. On the other hand, we think that grandiose delusions could be another possible extraneous variable. It is possible that if grandiose delusions are not present, when the patients endorse and apply to themselves the negative stereotypes associated with schizophrenia (especially incompetence), they feel weaker and incompetent, which diminishes their self-confidence and the belief in their own capacity for effective action and resolution. But if grandiose delusions are present, in spite of approving the stereotypes and “partly” applying them to themselves, it is possible that, at the same time, they feel capable of achieving anything ("feeling" or "knowing" that one is “special") (Garety et al., 2012; Kavanagh & Bower, 1985; Smith et al., 2005). Habitually, the person with schizophrenia simultaneously experiences alienation / reification (which implies that one is not totally master of one's own acts or thoughts, so one cannot trust oneself) and omnipotence / grandiosity (which implies that one's own actions or even thoughts can change reality beyond what is rational to expect) (Pérez-Álvarez, 2012). Besides, if grandiose delusions are not present, if the person believes in his own capacity (self-efficacy) they will feel less nervous, angry, fearful, etc. But if grandiose delusions are present, a high perceived self-efficacy could be associated with other delusions (e.g. persecutory ones) that would generate an increase of negative affect (feeling nervous, angry, worried and fearful). Therefore, it seems necessary to study this model controlling for grandiose delusions.

Previous results (Morgades-Bamba et al., 2017) suggest that, for people with mental disorders in general, alienation (feeling inferior to others, a burden on society, a “lost case” with a ruined life and without possibilities of a satisfying future) diminishes self-esteem but not self-efficacy. That is to say, alienation would make them feel less worthy but it would not change their beliefs about what they are able to achieve. According to the present results, it seems that alienation not only would reduce self-esteem but also self-efficacy in people with schizophrenia. Perhaps, again, grandiose delusions could be skewing this result. Maybe, in “alienated” patients with this delusions, self-efficacy is affected in a different way. Another possible explanation could be that other disorders are not considered as chronic and biological as schizophrenia. If the patients are alienated and see themselves in terms of a disease that they consider impossible to overcome, their self-efficacy would diminish (Bandura, 1993). Therefore, it could be useful to test this model taking into account the patients’ conception of schizophrenia.

The model we have tested is of great relevance when it comes to promoting recovery, since the affective well-being (good levels of determination, disposition, encouragement, inspiration, and an active and alert attitude; and low levels of despair, guilt, worry, fear, shame…) would be one of the key elements to achieve the remission of symptoms and the recovery of mental, social and physical disposition (Ralph,

2000; Ralph et al., 2002). People who have recovered from schizophrenia have emphasized the following fundamental elements for their recovery: (a) to believe and to trust in oneself again (in one's own capacity, in one's own thoughts, and in one's future possibilities); (b) to regain confidence and personal identity leaving aside the hopelessness, impotence and injury by which the diagnosis is accompanied; (c) moving from passivity to active coping, and from alienation to a sense of meaning and purpose of one's life; and (d) to stop seeing oneself as a person characterized mainly by having schizophrenia, and thereby recovering a positive sense of oneself (Lysaker et al., 2010; Ralph et al., 2002; Ridgway, 2001).

In order to avoid the internalization of stigma, clinicians not only have to try to promote a change in the social conception of the people diagnosed with schizophrenia, and train patients to face discrimination in a more beneficial way, but also be seriously aware that the label of "schizophrenic" is a big weight for the person. We must bear in mind the danger of the phenomenon of *engulfment* (seeing oneself only in terms of the disease), which decreases self-esteem and self-efficacy, and increases the level of hopelessness (McCay & Seeman, 1998). Although the acceptance of the disease (*awareness / insight*) is something positive because it would favour treatment adherence (rehabilitation engagement / compliance with interventions), we must not forget that it is related to internalized stigma (Bassman, 2000; Yanos et al., 2010). In fact, accepting the disease is only beneficial if the patient has a sense of control over their life (Warner, 2013), which does not seem to happen very frequently. In people with schizophrenia, it has been shown that insight diminishes self-esteem, increases impotence and despair (Hasson-Ohayon et al., 2006), and lead to a loss of sense of control over one's life (Warner et al., 1989; Warner, 2013). According to Yanos et al., (2010), illness identity (*awareness*) diminishes self-esteem and hope, which in turn increase rehabilitation engagement and socialization, and reduce suicide risk and symptoms severity. Thus, it seems that if the process that has been studied in the present model takes place, rehabilitation engagement would decrease, while risk of suicide and symptoms severity would increase (Yanos et al., 2010). It had been suggested that the relationship between internalized stigma and lesser recovery could be explained by the deterioration of self-concept and the subsequent increase of depressive features and hopelessness (Wood et al., 2017), and our results may shed light on this process. Likewise, it seems quite likely that the relationship which has been found between internalized stigma and suicide ideations (Touriño et al., 2018) is explained by the deterioration of self-concept and affective well-being; therefore, this specific issue should be examined in future research. However, the present findings are relevant in preventing suicide in people with schizophrenia. On the one hand, a low level of self-esteem is a risk factor for suicide (Overholser et al., 1995; Petrie & Brook, 1992; Wilburn & Smith, 2005; Wild et al., 2004). On the other hand, subjective well-being is an important negative predictor of suicide, both in the general population (Brenner et al., 2008; Cha & Nock, 2009; Huntington & Bender, 1993) and in people with schizophrenia (Johnson et al., 2008).

To avoid dramatic consequences and to increase the possibility of recovery from schizophrenia, since the first moment (i.e. diagnosis), clinicians should work on the prevention of the internalization of stigma (especially alienation) and on the promotion of the development or the maintenance of a positive self-concept in the patient. It has been shown that presenting schizophrenia as a genetic disorder rather than as a disorder triggered primarily by environmental causes, makes the level of stigmatization significantly higher, and the recovery conceived as something less likely (Bennett et al., 2008). Therefore, in order to avoid internalized stigma and its consequences, when a patient is diagnosed and treated, it is not recommendable to start with genetical-neurobiological etiological assumptions that still do not have consistent empirical support –there could exist a relationship that is not causal– (Pérez-Álvarez, 2012), or telling the person that is a disabling and lifelong disorder. It seems that it would be preferable to start with empirical data about the patients who have partially or totally recovered, about the influence of painful or traumatic events in the development of schizophrenia (Magliano et al., 2011; Ordóñez-Camblor et al., 2014; Read et al., 2005) and about people with schizophrenia who “did great things” (e.g. John Forbes, Tom Harrell…). In clinical practice, in theoretical and practical training of mental health professionals, and in state campaigns aimed at the population, it should be emphasized that “being diagnosed with schizophrenia may come as a shock, but the disease is treatable and recovery is possible” (APA, 2018b, par. 9). We must heed the fact that, in less developed countries (in which there is lower stigmatization and where great importance is given to social support), the complete clinical remission rate is more than twice that of developed countries (while the frequency of antipsychotic use is almost four times lower) (Hopper et al., 2007).

Psychological and psychoeducational interventions are indispensable components in schizophrenia treatment (APA, 2018a; Pitschel-Walz et al., 2001). We highly recommend interventions aimed at building positive self-concept of patients with schizophrenia, reducing self-stigmatizing attitudes and thoughts, and strengthening positive aspects and views of one´s self (Yanos et al., 2015), such as *Healthy Self-concept, Ending self-stigma* (EES; Lucksted et al., 2011), and *Narrative Enhancement and Cognitive Therapy* (NECT; Hansson et al., 2017), whose effectiveness has been tested. Specifically, NECT —which is based on the premise that the rejection of a stigmatized view of oneself requires the construction of a new story about oneself—, in addition to being effective for improving hope and quality of lif, it has been pointed out as a promising intervention to promote recovery from schizophrenia (Roe et al., 2014). It is also highly recommendable the *Metacognitive Reflection and Insight Therapy* (MERIT; Lysaker & Roe, 2016), which enhances self-reflection and promotes an integrative and realistic sense of self. MERIT is based on metacognition (the capacity to think about one's own thinking), and it has proved to be an effective therapy to promote recovery from schizophrenia-spectrum disorders. We also strongly recommend interventions that increase positive affect, such as *Loving-Kindness Meditation* (LKM; Johnson et al., 2011), which seems to be effective in reducing the negative symptomatology of schizophrenia. Finally, *Coming Out Proud* (COP; Corrigan et al., 2015) is also an appropriate program to reduce internalized mental illness stigma.

Our results could have important implications for how internalized stigma is measured, since some measures such as the *Self Stigma of Mental Illness Scale* (SSMIS, Corrigan et al., 2006) focus on stereotype endorsement, and perhaps an essential component of the way in which the internalization of stigma impacts on relevant outcomes is being neglected in some studies.

It must be noted that there are some limitations of this study. In the first place, due to its cross-sectional nature, we can only infer statistic (and not real) cause-effect relationships. In addition, the generalization of the results is limited because all the participants were receiving some type of institutional support, and almost all of them were in pharmacological treatment. Finally, although we have used an adequate sample size, it would be advisable to replicate the study with a larger sample. However, our study provides some important contributions to the study of internalized stigma and wellbeing in people with schizophrenia. Firstly, positive and negative affect seem to be considerably affected by alienation and stereotype endorsement. Secondly, self-esteem seems to play an important mediating role in the process, cushioning the effect of internalized stigma. Thirdly, self-efficacy seems to protect positive affect from the damage caused by alienation. These results have practical implications for the design of interventions in order to improve affective well-being of people with schizophrenia.

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References

American Psychological Association (2018a). Schizophrenia treatment. Retrieved from: https://www.apa.org/topics/schiz/treatment.aspx.

American Psychological Association (2018b). Recognizing the signs of schizophrenia. Retrieved from: https://www.apa.org/helpcenter/recognizing-schizophrenia.aspx.

Andresen, R., Oades, L., Caputi, P., 2003. The experience of recovery from schizophrenia: towards an empirically validated stage model. Australian N. Z. J. Psychiatry 37 (5), 586–594.

Arbuckle, J.L., 2017. IBM SPSS Amos 25 User's Guide. Amos Development Corporation, Crawfordville, FL.

Ayyash-Abdo, H., Alamuddin, R., 2007. Predictors of subjective well-being among college youth in Lebanon. J Social Psychol 147 (3), 265–284.

Bahorik, A.L., Satre, D.D., Kline-Simon, A.H., Weisner, C.M., Campbell, C.I., 2017. Serious mental illness and medical comorbidities: Findings from an integrated health care system. J Psychosom. Res. 100, 35–45.

Bandura, A., 1993. Perceived self-efficacy in cognitive development and functioning. Educ. Psycholog. 28 (2), 117–148.

Baron, R.M., Kenny, D.A., 1986. The moderator–mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. J. Pers. Social Psychol. 51 (6), 1173.

Bassman, R., 2000. Agents, not objects: our fights to be. J. Clin. Psychol. 56 (11), 1395–1411.

Bennett, L., Thirlaway, K., Murray, A.J., 2008. The stigmatising implications of presenting schizophrenia as a genetic disease. J. Genet. Couns. 17 (6), 550–559.

Boyd-Ritsher, J., Phelan, J.C., 2004. Internalized stigma predicts erosion of morale among psychiatric outpatients. Psychiatry Res. 129 (3), 257–265.

Boyd-Ritsher, J., Otilingam, P.G., Grajales, M., 2003. Internalized stigma of mental illness: psychometric properties of a new measure. Psychiatry Res. 121 (1), 31. https://doi.org/10.1016/j.psychres.2003.08.008.

Brenner, L., Gutierrez, P., Cornette, M., Betthauser, L., Bahraini, N., Staves, P., 2008. A qualitative study of potential suicide risk factors in returning combat veterans. J. Mental Health Couns. 30 (3), 211–225.

Brohan, E., Elgie, R., Sartorius, N., Thornicroft, G., GAMIAN-Europe Study Group, 2010. Self-stigma, empowerment and perceived discrimination among people with schizophrenia in 14 European countries: the GAMIAN-Europe study. Schizophr. Res. 122 (1–3), 232–238.

Campo-Arias, A., Herazo, E., 2015. The stigma-discrimination complex associated with mental disorder as a risk factor for suicide. Revista Colombiana de Psiquiatría 44 (4), 243–250.

Cha, C.B., Nock, M.K., 2009. Emotional intelligence is a protective factor for suicidal behavior. J. Am. Acad. Child Adolesc. Psychiatry 48 (4), 422–430.

Corrigan, P.W., Larson, J.E., Michaels, P.J., Buchholz, B.A., Del Rossi, R., Fontecchio, M.J., Castro, D., Gause, M., Krzyzanowski, R., Rüsch, N., 2015. Diminishing the self-stigma of mental illness by coming out proud. Psychiatry Res. 229 (1), 148–154.

Corrigan, P.W., Larson, J.E., Rüsch, N., 2009. Self-stigma and the "why try" effect: Impact on life goals and evidence-based practices. World Psychiatry Off. J. World Psychiatric Assoc. 8 (2), 75–81.

Corrigan, P.W., Rao, D., 2012. On the self-stigma of mental illness: Stages, disclosure, and strategies for change. Can. J. Psychiatry 57 (8), 464–469.

Corrigan, P.W., Watson, A.C., 2002. The paradox of self-stigma and mental illness. Clin. Psychol. Sci. Pract. 9 (1), 35–53.

Corrigan, P.W., Watson, A.C., Barr, L., 2006. The self-stigma of mental illness: Implications for self-esteem and self-efficacy. J. Social Clin. Psychol. 25 (8), 875–884.

Expósito, F., Moya, M., 1999. Soledad y apoyo social. "Loneliness and social support. Revista De Psicología Social 14 (2-3), 297–316.

Fung, K.M., Tsang, H.W., Corrigan, P.W., 2008. Self-stigma of people with schizophrenia as predictor of their adherence to psychosocial treatment. Psychiatr. Rehab. J. 32 (2), 95.

Garay, M., Pousa, V., Pérez, L., 2014. La relación entre la percepción subjetiva del funcionamiento cognitivo y el autoestigma con la experiencia de recuperación de las personas con enfermedad mental grave. Revista de la Asociación Española de Neuropsiquiatría 34 (123), 459–475.

Garety, P.A., Gittins, M., Jolley, S., Bebbington, P., Dunn, G., Kuipers, E., Freeman, D., 2012. Differences in cognitive and emotional processes between persecutory and grandiose delusions. Schizophr. Bull. 39 (3), 629–639.

Garfield, D.A., Rogoff, M.L., Steinberg, S., 1987. Affect recognition and self-esteem in schizophrenia. Psychopathology 20 (5-6), 225–233.

Govindji, R., Linley, P.A., 2007. Strengths use, self-concordance and well-being: Implications for strengths coaching and coaching psychologists. Int. Coaching Psychol. Rev. 2 (2), 143–153.

Hajda, M., Kamaradova, D., Latalova, K., Prasko, J., Ociskova, M., Mainerova, B., Tichackova, A., 2015. Self-stigma, treatment adherence, and medication discontinuation in patients with bipolar disorders in remission–a cross sectional study. Activitas Nervosa Superior Rediviva 57 (1–2), 6–11.

Hasson-Ohayon, I., Kravetz, S., Roe, D., David, A.S., Weiser, M., 2006. Insight into psychosis and quality of life. Compr. Psychiatry 47 (4), 265–269.

Hansson, L., Lexén, A., Holmén, J., 2017. The effectiveness of narrative enhancement and cognitive therapy: a randomized controlled study of a self-stigma intervention. Social Psychiatry Psychiatr. Epidemiol. 52 (11), 1415–1423.

Hayes, A.F., 2009. Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. Commun. Monogr. 76 (4), 408–420.

Hopper, K., Harrison, G., Janca, A., Sartorius, N., 2007. Recovery from schizophrenia: An international perspective: A report from the WHO Collaborative Project, the International Study of Schizophrenia. Oxford University Press.

Hu, L.T., Bentler, P.M., 1999. Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. Struct. Equ. Modeling Multidisc. J. 6 (1), 1–55.

Huntington, D.D., Bender, W.N., 1993. Adolescents with learning disabilities at risk? Emotional well-being, depression, suicide. J. Learn. Disabil. 26 (3), 159–166.

Jääskeläinen, E., Juola, P., Hirvonen, N., McGrath, J.J., Saha, S., Isohanni, M., Veijola, J., Miettunen, J., 2012. A systematic review and meta-analysis of recovery in schizophrenia. Schizophr. Bull. 39 (6), 1296–1306.

Johnson, J., Gooding, P., Tarrier, N., 2008. Suicide risk in schizophrenia: explanatory models and clinical implications, the schematic appraisal model of suicide (SAMS). Psychol. Psychother. Theory Res. Pract. 81 (1), 55–77.

Johnson, D.P., Penn, D.L., Fredrickson, B.L., Kring, A.M., Meyer, P.S., Catalino, L.I., Brantley, M., 2011. A pilot study of loving-kindness meditation for the negative symptoms of schizophrenia. Schizophr. Res. 129 (2–3), 137–140.

Karidi, M.V., Stefanis, C.N., Theleritis, C., Tzedaki, M., Rabavilas, A.D., Stefanis, N.C., 2010. Perceived social stigma, self-concept, and self-stigmatization of patient with schizophrenia. Compr. Psychiatry 51 (1), 19–30.

Kavanagh, D.J., Bower, G.H., 1985. Mood and self-efficacy: impact of joy and sadness on perceived capabilities. Cogn. Ther. Res. 9 (5), 507–525.

Kline, R.B., 2011. Principles and Practice of Structural Equation Modelling. The Guilford Press, New York.

Liberman, R.P., Kopelowicz, A., Ventura, J., Gutkind, D., 2002. Operational criteria and factors related to recovery from schizophrenia. Int. Rev. Psychiatry 14 (4), 256–272.

Livingston, J.D., Boyd, J.E., 2010. Correlates and consequences of internalized stigma for people living with mental illness: A systematic review and meta-analysis. Social Sci. Med. 71 (12), 2150–2161.

Lucksted, A., Drapalski, A., Calmes, C., Forbes, C., DeForge, B., Boyd, J., 2011. Ending self-stigma: pilot evaluation of a new intervention to reduce internalized stigma among people with mental illnesses. Psychiatric Rehab. J. 35 (1), 51.

Lysaker, P.H., Buck, K.D., 2008. Is recovery from schizophrenia possible? An overview of concepts, evidence, and clinical implications. Prim. Psychiatry 15 (6), 60–65.

Lysaker, P.H., Glynn, S.M., Wilkniss, S.M., Silverstein, S.M., 2010. Psychotherapy and recovery from schizophrenia: a review of potential applications and need for future study. Psychol. Serv. 7 (2), 75.

Lysaker, P.H., Roe, D., 2016. Integrative psychotherapy for schizophrenia: its potential for a central role in recovery oriented treatment. J. Clin. Psychol. 72 (2), 117–122.

Lysaker, P.H., Tsai, J., Yanos, P., Roe, D., 2008. Associations of multiple domains of self-esteem with four dimensions of stigma in schizophrenia. Schizophr. Res. 98 (1-3), 194–200.

McCay, E.A., Seeman, M.V., 1998. A scale to measure the impact of a schizophrenic illness on an individual's self-concept. Arch. Psychiatr. Nurs. 12 (1), 41–49.

Magliano, L., Read, J., Rega, S., Oliviero, N., Sagliocchi, A., Patalano, M., D'ambrosio, A., 2011. The influence of causal explanations and diagnostic labeling on medical students' views of schizophrenia. Acad. Med. 86 (9), 1155–1162.

Mohn, C., Olsson, A.K., Helldin, L., 2018. Positive and negative affect in schizophrenia spectrum disorders: a forgotten dimension? Psychiatry Res. https://doi.org/10.1016/j.psychres.2018.05.060.

Morgades-Bamba, C.I., Fuster-Ruizdeapodaca, M.J., Molero, F., 2017. The impact of stigma on subjective well-being in people with mental disorders. Clinical Schizophrenia & Related Psychoses. Advance online publication.https://doi.org/10.3371/CSRP.CBMF.071317.

Mueser, K.T, McGurk, S.R., 2004. Schizophrenia. Lancet 363, 2063–2072. Retrieved from: https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(04)16458-1/abstract.

Muñoz, M., Sanz, M., Pérez-Santos, E., De-los-Ángeles-Quiroga, M., 2011. Proposal of a socio-cognitive-behavioral structural equation model of internalized stigma in people with severe and persistent mental illness. Psychiatry Res. 186 (2), 402–408.

Ordóñez-Camblor, N., Lemos-Giráldez, S., Paino, M., Fonseca-Pedrero, E., García-Álvarez, L., Pizarro-Ruiz, J.P., 2014. Relación entre psicosis y experiencias traumáticas tempranas. Anuario de Psicología 44 (3).

Overholser, J.C., Adams, D.M., Lehnert, K.L., Brinkman, D.C., 1995. Self-esteem deficits

and suicidal tendencies among adolescents. J. Am. Acad. Child Adoles. Psychiatry 34 (7), 919–928.
Pauly, K., Kircher, T., Weber, J., Schneider, F., Habel, U., 2011. Self-concept, emotion and memory performance in schizophrenia. Psychiatry Res. 186 (1), 11–17.
Pérez-Álvarez, M., 2012. Esquizofrenia y cultura moderna: razones de la locura. Psicothema 24 (1), 1–9.
Petrie, K., Brook, R., 1992. Sense of coherence, self-esteem, depression and hopelessness as correlates of reattempting suicide. Br. J. Clin. Psychol. 31 (3), 293–300.
Pitschel-Walz, G., Leucht, S., Bauml, J., Kissling, W., Engel, R.R., 2001. The effect of family interventions on relapse and rehospitalization in schizophrenia — a meta-analysis. Schizophr. Bull. 27 (1), 73–92.
Ralph, R.O., 2000. Review of Recovery literature. A synthesis of a Sample of the Recovery Literature. National Technical Assistance Center for State Mental Health Planning and National Association of State Mental Health Program Directors, Alexandria, VA.
Ralph, R.O., Lambert, D., Kidder, K.A., 2002. The Recovery Perspective and Evidence-Based Practice For People With Serious Mental Illness. Behavioral Health Recovery Management Project, Illinois Retrieved from: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.527.4463&rep=rep1&type=pdf.
Read, J., van Os, J., Morrison, A.P., Ross, C.A., 2005. Childhood trauma, psychosis and schizophrenia: a literature review with theoretical and clinical implications. Acta Psychiatr. Scand. 112 (5), 330–350.
Ridgway, P., 2001. Restorying psychiatric disability: learning from first person recovery narratives. Psychiatr. Rehab. J. 24 (4), 335.
Roe, D., Hasson-Ohayon, I., Mashiach-Eizenberg, M., Derhy, O, Lysaker, P.H., Yanos, P.T., 2014. Narrative enhancement and cognitive therapy (NECT) effectiveness: A quasi-experimental study. J. Clin. Psychol. 70 (4), 303–312.
Rosenberg, M., 1965. Rosenberg self-esteem scale (RSE). Accept. Commit. Therapy Meas. Package 61, 52.
Sandín, B., Chorot, P., Lostao, L., Joiner, T.E., Santed, M.A., Valiente, R.M., 1999. The PANAS scales of positive and negative affect: factor analytic validation and cross-cultural convergence. Psicothema 11 (1), 37–51.
Sanjuán-Suárez, P., Pérez-García, A.M., Bermúdez-Moreno, J., 2000. Escala de auto-eficacia general: datos psicométricos de la adaptación para población española. "The general self-efficacy scale: Psychometric data from the Spanish adaptation. Psicothema 12, 509–513.
Sheldon, K.M., Elliot, A.J., Kim, Y., Kasser, T., 2001. What is satisfying about satisfying events? Testing 10 candidate psychological needs. J. Personal. Soc. Psychol. 80 (2), 325.
Sibitz, I., Unger, A., Woppmann, A., Zidek, T., Amering, M., 2009. Stigma resistance in patients with schizophrenia. Schizophr. Bull. 37 (2), 316–323.
Sibitz, I., Amering, M., Unger, A., Seyringer, M.E., Bachmann, A., Schrank, B., Benesch, T., Schulze, B., Woppmann, A., 2011. The impact of the social network, stigma and empowerment on the quality of life in patients with schizophrenia. Eur. Psychiatry 26 (1), 28–33.
Silverstein, S.M., Bellack, A.S., 2008. A scientific agenda for the concept of recovery as it applies to schizophrenia. Clin. Psychol. Rev. 28 (7), 1108–1124.
Schwarzer, R., 1992. Self-efficacy in the Adoption and Maintenance of Health behaviors: Theoretical approaches and a New Model. Hemisphere Publishing Corporation, Washington, DC.
Smith, N., Freeman, D., Kuipers, E., 2005. Grandiose delusions: an experimental investigation of the delusion as defense. J. Nerv. Mental Dis. 193 (7), 480–487.
Tang, I.C., Wu, H.C., 2012. Quality of life and self-stigma in individuals with schizophrenia. Psychiatr. Q. 83 (4), 497–507.
Touriño, R., Acosta, F.J., Giráldez, A., Álvarez, J., González, J.M., Abelleira, C., Benítez, N., Baena, E., Fernández, J.A., Rodríguez, C.J., 2018. Riesgo suicida, desesperanza y depresión en pacientes con esquizofrenia y autoestigma. Actas Españolas de Psiquiatría 46 (2), 33–41.
Vita, A., Barlati, S., 2018. Recovery from schizophrenia: is it possible? Curr. Opin. Psychiatry 31 (3), 246–255.
Warner, R., 2013. Recovery from schizophrenia: Psychiatry and Political Economy. Routledge, New York.
Warner, R., Taylor, D., Powers, M., Hyman, J., 1989. Acceptance of the mental illness label by psychotic patients: effects on functioning. Am. J. Orthopsychiatry 59 (3), 398–409.
Wartelsteiner, F., Mizuno, Y., Frajo-Apor, B., Kemmler, G., Pardeller, S., Sondermann, C., Welte, A.S., Fleischhacker, W.W., Uchida, H., Hofer, A., 2017. Quality of life in patients with schizophrenia: its associations with resilience, self-esteem, hopelessness, and psychopathology. Schizophr. Bull. 43 (1), 257.
Watson, D., Clark, L.A., Tellegen, A., 1988. Development and validation of brief measures of positive and negative affect: the PANAS scales. J. Pers. Soc. Psychol. 54 (6), 1063.
Wilburn, V.R., Smith, D.E., 2005. Stress, self-esteem, and suicidal ideation in late adolescents. Adolescence 40 (157).
Wild, L.G., Flisher, A.J., Lombard, C., 2004. Suicidal ideation and attempts in adolescents: associations with depression and six domains of self-esteem. J. Adolesc. 27 (6), 611–624.
Wood, L., Byrne, R., Burke, E., Enache, G., Morrison, A.P., 2017. The impact of stigma on emotional distress and recovery from psychosis: The mediatory role of internalised shame and self-esteem. Psychiatry Res. 255, 94–100.
Yanos, P.T., Lucksted, A., Drapalski, A.L., Roe, D., Lysaker, P., 2015. Interventions targeting mental health self-stigma: a review and comparison. Psychiatr. Rehabil. J. 38 (2), 171.
Yanos, P.T., Roe, D., Lysaker, P.H., 2010. The impact of illness identity on recovery from severe mental illness. Am.J. Psychiatr. Rehab. 13 (2), 73–93.
Yanos, P.T., Roe, D., Markus, K., Lysaker, P.H., 2008. Pathways between internalized stigma and outcomes related to recovery in schizophrenia spectrum disorders. Psychiatr. Serv. 59 (12), 1437–1442.