CLINICAL SCHIZOPHRENIA & RELATED PSYCHOSES

Rapid Electronic Article in Press

This preprinted manuscript has been reviewed and accepted for publication but has yet to be edited, typeset and finalized. This version of the manuscript will be replaced with the final, published version after it has been published in the print edition of the journal. The final, published version may differ from this proof.

DOI: 10.3371/CSRP.CBMF.071317

The impact of stigma on subjective well-being in people with mental disorders

Clara I. Morgades-Bamba, María José Fuster-Ruizdeapodaca, Fernando Molero

Departamento de Psicología Social y de las Organizaciones, Universidad Nacional de Educación a Distancia (UNED), Madrid, Spain.

* *Corresponding author*: Clara Isabel Morgades Bamba *Permanent address*: C. I. Morgades-Bamba, Avda. Valencia, 13, 6º C, 50005, Zaragoza, Spain. *Email addresses*: claramorgades@cop.es, clara_zgz88@hotmail.com *Telephone*: +34 630 333 928

Abstract

Rationale: People diagnosed with a mental disorder are highly discriminated against, and when they internalize the social stigma they suffer severe consequences which have been associated with greater symptomatology and reduced recovery. This research was carried out in order to develop a predictive model about how discrimination contributes to subjective well-being (positive and negative affects experienced) by means of internalization of stigma (alienation, stereotype endorsement and social withdrawal) and deterioration of positive self-concept (self-esteem and self-efficacy). **Method:** We conducted a cross-sectional research design. We used Partial Least Squares (PLS) modelling to analyze the data from 94 Spanish participants diagnosed with a mental disorder. **Results:** A differential effect of blatant and subtle discrimination is found. Both internalized stigma and positive self-concept play a central role in the effects of discrimination on subjective well-being. Internalized stigma contributes to the explained variance of negative and positive affect, while positive self-concept contributes mainly to explain changes in positive affect. **Conclusions:** Positive self-concept protects the person from the harm that stigma may cause on his well-being. It especially protects positive affect, which we propose is an important resource in the recovery process. These findings have clinical and research implications.

Key words: Mental disorder, Internalized stigma, Self-stigma, Positive self-concept, Self-esteem, Self-efficacy, Emotions.

Introduction

Stigma is understood as a deeply devaluing attribute, which demeans the person who bears it because of being contrary to the belief shared by a social unit about how a member of that unit should be or behave (1). The stigma is not in the individual but in the social context; a stigmatizing attribute in a given social environment may not be so in another situation (2), since what constitutes stigma are the cultural assumptions concerning this attribute. In the present case this attribute is “mental illness”, which is determined by a diagnosis. People diagnosed with a mental disorder are among the most stigmatized groups in our society (3). Research shows that they suffer from discrimination at work, in their relationships, in hospitals, and in the media (4). Moreover, it has been shown that the biggest barrier to their community integration and employment is the one imposed by stigma (5); in fact, stigma is sometimes more harmful than the symptoms of the disease themselves (6).

Internalization of stigma takes place when someone assumes and applies to himself the negative stereotypes related to “mental illness”. The person not only internalizes beliefs but also public attitudes. He begins to discriminate against himself, and, as a consequence of it, he suffers a significant deterioration of his self-concept (self-esteem and self-efficacy). This brings about a profound demoralization that leads to not pursuing life goals (7), inasmuch as such decreased levels of self-esteem and self-efficacy give rise to the so-called “why try” effect (which implies hopelessness, apathy, and ideas of being undeserving and unable to function both independently and efficiently) (8). As a result of these processes, the person may get used to living in a passive way. All this would represent the worst possible scenario to cope and overcome any disorder. Perhaps this is why internalized stigma has been related to lower perception of recovery (9, 10) and greater symptomatology (11). Furthermore, evidence suggests that internalized stigma is a major barrier to the recovery process (12, 13).

Mental illness stigma has been the subject of several research efforts, but only just over a third of these studies have studied internalized stigma (14). Moreover, although it has been shown that internalized stigma involves some negative emotional consequences (15), what

has not yet been studied is to what extent, and how, positive emotions are influenced by it. Given that mental illness recovery may depend on an active attitude and motivation (16), it appears to be important to explore the frequency with which the person feels active, enthusiastic, inspired, strong and determined.

The aim of the present study is to develop a model to predict how mental illness discrimination may influence subjective well-being (in its affective component) by means of internalization of stigma (stereotype endorsement, alienation, and social withdrawal) and the consequent modification of self-concept (self-esteem and self-efficacy). It has been affirmed that contemporary models of stigma should include subtle discrimination (17), and one of the contributions of the present model is that it explores the possible differential effect of discrimination depending on whether it is blatant or subtle. It has also been proposed that an understanding of what contributes to a diminished sense of self could have critical implications for models of wellness (18), and one of our interests is to explore how positive self-concept could be affected by each type of discrimination and by each dimension of internalized stigma.

As can be seen in Figure 1, according to the literature, it is proposed that the experience of discrimination is positively associated with the internalization of stigma, which is negatively related to positive self-concept, which, in turn, is associated with subjective well-being (positively with positive affect and negatively with negative affect).

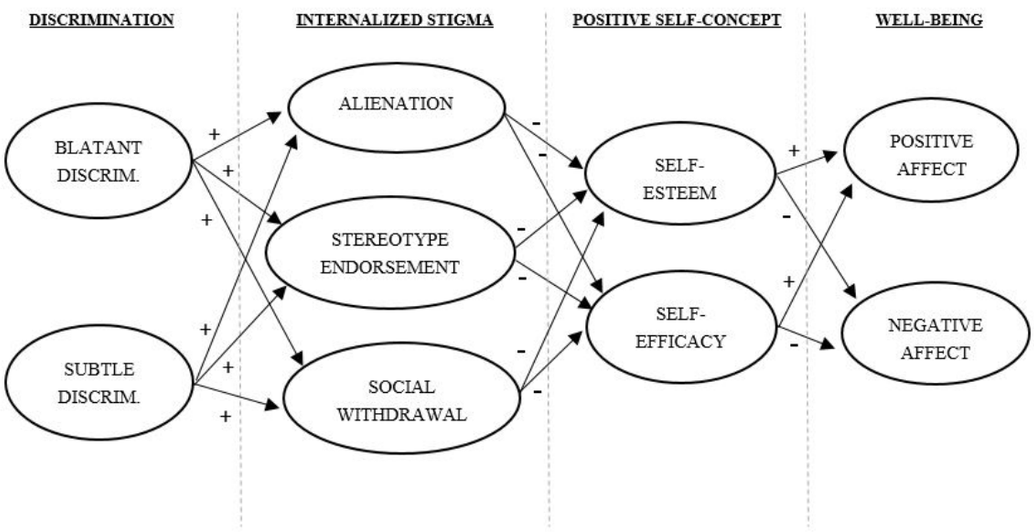

Figure 1. Hypothesized model

Method

Participants

Ninety-four people (50 men and 44 women) diagnosed with a mental disorder, aged 21 to 66 years (M = 44.01, SD = 9.51), participated in the study. There were no other inclusion criteria except to be willing to work in the study, not to have cognitive impairment, and to have been diagnosed with a disorder classified in the Diagnostic and Statistical Manual of Mental Disorders (19). Nearly half of the sample (n = 44; N = 94) had schizophrenia diagnosis or another psychotic disorder, whereas 24 participants had been diagnosed with bipolar disorder or depression. The rest of the sample had one of the following disorders: Adjustment disorder, anxiety disorder, personality disorder, and substance dependence.

Measures

Discrimination. To measure this variable, the Multidimensional Scale of Perceived Discrimination (20) was employed, using its section concerning individual discrimination. This section assesses personally experienced discrimination, and is integrated by two subscales: *Blatant individual discrimination* (nine items like “I have been treated unfairly for having a mental illness”), and *Subtle individual discrimination* (three items like “Even in the

cases where people seems to accept me, I think that there is some mistrust because I am a person with mental illness").

Internalized stigma. This variable was measured by the Internalized Stigma of Mental Illness scale (ISMI) (21), which was validated in Spain (22). This scale assesses the level of self-stigma in people with mental illness, and it has been chosen because of its content validity, construct validity, internal consistency and feasibility, which have been largely demonstrated, seeming therefore to be the most recommendable instrument for this aim (14). We were interested in studying three of the five subscales into which the ISMI is divided: *Alienation* (six items like "I feel inferior to others who don't have mental illness"), *Stereotype endorsement* (seven items like "I cannot contribute anything to society because I have a mental illness"), and *Social withdrawal* (six items like "I avoid getting close to people who don't have a mental illness to avoid rejection"). *Discrimination experience* and *Stigma resistance* subscales were not used in this study because the first former gauges a variable that is already measured by a specific instrument, and the latter portrays the experience of being unaffected by the stigma. In fact, some authors examine *Stigma resistance* as a separate construct from *Internalized stigma* (23, 13).

Self-esteem. This variable was measured by using the Spanish adaptation (24) of the 10-item Rosenberg Self-esteem Scale (25). It includes items like "I take a positive attitude toward myself" or "I wish I could have more respect for myself" (reversed).

Self-efficacy. This construct was measured using the Spanish validation (26) of the Bäβler Self-efficacy Scale (27), which includes ten items like "I can manage to solve difficult problems if I try hard enough".

Discrimination, ISMI, Self-esteem and Self-efficacy scales were rated according to a Likert scale from 1 (strongly disagree) to 4 (strongly agree).

Positive and Negative Affect: To measure these two variables, the Spanish validation (28) of the Positive and Negative Affect Schedule (PANAS) (29) was used. This instrument measures the frequency with which *Positive affect* (ten items like "Inspired", "Enthusiastic" or "Proud") and *Negative affect* (ten items like "Hostile",

“Afraid” or “Distressed”) are habitually experienced. This scale was rated with a Likert scale from 1 (very slightly or not at all) to 5 (extremely).

Procedure

The Aragonese Psychosocial Rehabilitation Association (AARP), a member of the Associations of Psychosocial Rehabilitation Spanish Federation (FEARP), was contacted for a meeting in order to present the research project to the board. Four entities that are part of AARP agreed to collaborate in the study. Data was collected in familiar and quotidian contexts where participants could feel comfortable: day-care centres, clinics and at their homes. Questionnaires were distributed when participants were determined to be clinically stable by their therapists. All of the participants were informed about the confidentiality of the data. It was also explained to the participants about the importance of honest responses in order to develop efficacy strategies, and that those strategies would potentially help people diagnosed with mental disorder to have a better quality of life. It took an average of 30 minutes to fill in the questionnaires.

Data analysis

To analyze the hypothesized model, the Partial Least Squares (PLS) method was employed. This method is adequate because a predictive research model (there being no firmly established theory) of the effects of some variables on others was being tested, and because no initial assumption of normality of the distributions is required (30). The PLS is a variance-based technique recommended in an early stage of theoretical development in order to test and validate exploratory models (31). SmartPLS 2.0 software (32) was used.

Results

No significant differences were found either in any variable distribution due to sex, age, diagnosis, or due to the place of data recollection; therefore, they will not be included in subsequent analysis. To assess the proposed model, it was analyzed in a two-step process (33). First, the measurement model -outer model- was analyzed to test the adequacy of the hypothesized factor structure for all constructs. Then, the structural model -inner model- was analyzed to test our hypotheses.

Measurement model

In this first phase, the reliability and the validity of all constructs included in the model were determined.

Reliability

To study reliability, the loadings of the indicators on the constructs (λ) should be examined. This was done following the criterion that propose a critical value of 1.96 for $p < .05$ (34). Some authors recommend elimination of indicators if their outer standardized loadings are smaller than .40 (35). Indicators with loadings between .40 and .70 should only be eliminated if it results in a substantial increase of the composite reliability (36). Following these criteria, one item from the *Negative affect* construct was removed: “ashamed” (which seems to be the most sophisticated one and the only indicator of the construct that could be related to society). With the same criteria, four items of the *Self-esteem* construct were eliminated: “feeling that one is a person of worth”, “having some qualities”, “not having much to be proud of”, and “wanting to have more respect for oneself”. Those items seem to be more generic and more easily accepted by everyone, whereas the six items that finally make up the *Self-esteem* construct seem to be more theoretically consistent with mental illness stereotypes: “being able to do things as well

as most people", "feeling useless", "feeling of being a failure", "being no good at all", "being satisfied with oneself", and "taking a positive attitude toward oneself". Note that three of these items indicate high self-esteem and the other three indicate low self-esteem, so the balance is maintained. With this procedure, the Composite Reliability (CR) was obtained. CR must be interpreted in the same way as Cronbach's alpha, and is a better indicator than this (31). As shown in Table 1, all the constructs exceed the value of .70, which is considered the cut-off reference value (37).

Validity

The convergent validity was appraised with the Average Variance Extracted (AVE). This index, by means of the common variance of the indicators and its implied construct, appraises that those constitute a unique underlying construct (38). The AVE should be higher than .50. As noted in Table 1, all the studied constructs meet the criterion except *Stereotype endorsement,* which has a slightly lower AVE (it was decided not to remove it because of being theoretically relevant).

Regarding discriminant validity, the assumed criterion is that a correlation between a construct and its indicators (it is the square root of the AVE) should be higher than the correlations among constructs (38). As shown in Table 2, the elements on the diagonal are higher than the elements from outside in the same row and column. The only exception is *Stereotype endorsement* which presents a slightly higher correlation with *Alienation*.

Table 1.
Composite Reliability (CR), Cronbach's Alpha (α) and Average Variance Extracted (AVE) from Partial Least Squares (PLS) Analysis

Construct	CR	α	AVE
Perceived Discrimination	.908	.886	.527
Blatant Discrimination	.870	.777	.691
Subtle Discrimination			
Internalized Stigma			
Alienation	.878	.831	.551
Stereotype Endorsement	.833	.775	.422
Social Withdrawal	.865	.810	.522
Positive Self-concept			
Self-esteem	.891	.855	.582
Self-efficacy	.931	.917	.575
Subjective Well-being			
Positive Affect	.935	.923	.593
Negative Affect	.908	.885	.525

Structural Model

In this second phase, the relationships among the studied constructs were analysed using linear regression in which the loads can be interpreted as standardized beta

coefficients. The confidence intervals were based on a bootstrapping of 500 samples that allows the generalization of the results and the computation of the Student-*t* for each hypothesis (33). To analyze the model, the coefficient of explained variance (*R2*) of each endogenous latent variable should be higher than .10 (39). As can be seen in Figure 2, all the constructs show a considerable amount of explained variance.

As shown in Figure 2, the direct relationships between the constructs verify the hypothesized relationships, but some of them are not statistically significant.

It can be seen that experienced discrimination is positively associated with the internalization of stigma, as we had hypothesized. Regarding the differences between the two types of discrimination, *Blatant discrimination* is significantly related to all dimensions of internalization, while subtle discrimination is only significantly related to *Alienation* and *Social withdrawal*.

As expected, the three dimensions of internalized stigma are negatively related to positive self-concept, but only two significant associations were found: *Alienation* with *Self-esteem,* and *Stereotype endorsement* with *Self-efficacy*. The associations between *Social withdrawal* and positive self-concept are not only statistically insignificant but also very weak.

As proposed, positive self-concept is positively associated with experiencing *Positive affect,* and negatively related to experiencing *Negative affect*. Relationships are significant in all cases, but it must be noted that the association between *Self-efficacy* and *Positive affect* is stronger than the other associations.

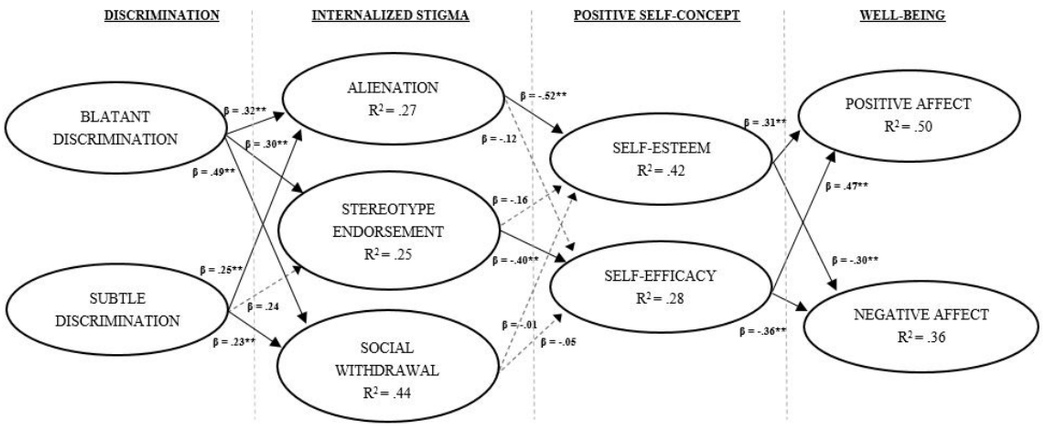

Figure 2. Model results. ** p <.01

Total Effects

In PLS path modelling, the standardized inner path model coefficients decline with an increased number of indirect relationships, so it has been proposed to evaluate the sum of the direct and all indirect effects of a particular latent variable on each other (i.e., the total effects) (31, 40). Regarding effect sizes, *f* 2 values of .02, .15, and .35 signify small, medium, and large effects, respectively (41). Thus, the following procedure was conducted: In the first step, the direct effects of the discrimination variables on subjective well-being constraining all the indirect paths to 0 were examined (Model 1). In the second step, the internalized stigma dimensions were introduced into the model, and the effects of discrimination on subjective well-being through these dimensions were studied (Model 2). Finally, positive self-concept variables were also introduced into the model (Model 3), which is our proposed model (Figure 2).

In the first step (Model 1), the relationship between both types of discrimination and the two dimensions of subjective well-being was checked. As can be seen in Table 2, *Blatant discrimination* produces effects almost exclusively on *Negative affect*, while *Subtle discrimination* produces effects on both affects, but mainly on *Positive affect.*

In the second step (Model 2), internalized stigma dimensions were introduced in the model. As can be observed in Table 2, now, *Blatant discrimination* produces substantial effects on *Positive affect,* and *Subtle discrimination* has a higher impact on *Negative affect* than in the first step. Additionally, and interestingly, *Blatant discrimination* effects on *Negative affect* are slightly reduced, while the negative effects of *Subtle discrimination* on *Positive affect* are reduced to half. As can be seen, in this step, the total effects of discrimination on each type of affect are equated (there is very little difference between the effects of discrimination on *Positive* and *Negative affect*). All these changes occur mainly through *Alienation,* which shows the greatest level of impact on both affects (it is even greater on *Positive affect*). It can also be noticed that *Social withdrawal* only produces substantial effects on *Negative affect.*

The introduction in the model of the internalized stigma dimensions showed a medium-large effect size in the explanation of *Negative affect* ($f^2 = .274$), and a large effect size in the case of *Positive Affect* ($f^2 = .320$).

Table 2. Bivariate correlations, descriptive statistics, average variance extracted square root, and total effects of the analyzed models

											Total effects					
											Model 1		Model 2		Model 3	
Variables	1	2	3	4	5	6	7	8	9	*M* ± *SD*	PA	NA	PA	NA	PA	NA
1. Blatant Discrimination [a]	**.73**									2.20 ± .71	.03	.29	-.20	.23	-.15	.13
2. Subtle Discrimination [a]	.69***	**.83**								2.40 ± .77	-.32	.10	-.15	.16	-.12	.10
3. Alienation [a]	.51***	.48***	**.74**							2.12 ± .55			-.42	.31	-.22	.20
4. Stereotype Endorsement [a]	.45***	.41***	.69***	**.65**						1.80 ± .69			-.11	.13	-.24	.19
5. Social Withdrawal [a]	.64***	.56***	.64***	.60***	**.72**					2.10 ± .66			-.06	.20	-.02	.02
6. Self-esteem [a]	-.36***	-.45***	-.62***	-.47***	-.45***	**.76**				2.85 ± .54					.31	-.30
7. Self-efficacy [a]	-.25*	-.25*	-.41***	-.47***	-.37***	.64***	**.76**			2.71 ± .65					.47	-.36
8. Positive Affect [b]	-.15	-.27**	-.53***	-.41***	-.40***	.59***	.64***	**.77**		2.92 ± .93						
9. Negative Affect [b]	.35***	.26**	.51***	.40***	.44***	-.51***	-.52***	-.46***	**.72**	2.20 ± .76						
R^2											.09	.13	.31	.32	.50	.36

Note: Values on the diagonal represent average variance extracted square root.

[a] Rated on a scale of 1 to 4. [b] Rated on a scale of 1 to 5.

PA: Positive Affect. NA: Negative Affect.

Model 1: Direct effects of discrimination on subjective well-being (without mediators in the model). Model 2: Effects of discrimination on subjective well-being through internalized stigma dimensions. Model 3: Effects of discrimination on subjective well-being including positive self-concept variables in the model (hypothesized model).

$^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$

Finally, as is shown in Table 2, when positive self-concept variables were introduced (Model 3), the effects of *Alienation* and *Social withdrawal* on affects are diminished (in fact, now, *Social withdrawal* has almost no effects on well-being). Surprisingly, *Stereotype endorsement* effects are increased, especially on *Positive affect*. However, this inclusion of *Self-esteem* and S*elf-efficacy* (to a greater extent) in the model, reduces all the effects of discrimination on well-being, especially the impact caused by *Blatant discrimination* on *Negative affect.* It can also be seen that, in this third step, the total effects of each type of discrimination are equated (there is little difference between the effects of *Blatant* and *Subtle discrimination* on well-being).

In this last step, the effect size on *Negative affect* was weak ($f^2 = .062$), but large in the case of *Positive affect* ($f^2 = .385$). Thus, positive self-concept variables contribute fundamentally to the explained variance of *Positive affect*.

Discussion

It has been highlighted by several authors that there is a need for a more profound study of discrimination and internalized stigma effects in people diagnosed with a mental disorder (42), as well as a need for further study of the damage caused by stigma in self-view and well-being of individuals, and under which conditions these effects are most likely to be expected (43). The main objective of this research was to study the association between the experienced discrimination and the affective component of subjective well-being in people diagnosed with a mental disorder. With these aims, it was decided to explore a theoretical model that could explain in detail the process including internalized stigma and positive self-concept as mediating factors.

Some preliminary analysis showed no significant differences in internalized stigma depending on the type of disorder, which suggests once again that patients internalize stigma associated with the label of *mentally ill* (and suffer its consequences) regardless of their diagnosis (44). As in other studies, no significant differences were found in terms of any socio-demographic variables (11, 45).

Differential impact of blatant and subtle discrimination

The results obtained support the idea that blatant discrimination contributes more to the internalization of stigma than subtle discrimination (20). Moreover, we have found that subtle discrimination is not significantly related to stereotype endorsement. A possible explanation for this finding is that the person does not necessarily relate these subtle discriminatory expressions uniquely to the attribute *mentally ill*. Subtle discrimination is not obvious, there is some ambiguity and uncertainty about it, so the person may not be sure whether he is being discriminated against because of his mental disorder (46). The person may think that, although he could interpret this subtle rejection as a prejudiced reaction, it might have taken place because of one of his personal characteristics or attitudes (i.e., internal attribution) (46). For this reason, subtle discrimination could be seen to be less related to the internalization of mental illness stigma, but it could, in certain cases, be the more harmful to well-being (47). In fact, it seems, interestingly, that stigma attribution protects well-being in some way, such as that we have found that self-stigma diminishes a lot of the harm caused by subtle discrimination on positive emotions.

In other studies, it has been found that the link between subtle discrimination and depressive symptoms is almost entirely mediated by cognitive appraisal of the experience (46), and the present results suggest that self-stigma and self-concept also mediate in this relation.

Blatant discrimination is more strongly related to social withdrawal than to the other two self-stigma dimensions, and it seems quite logical since the person may primarily avoid social contact if he thinks that he will be blatantly rejected and disparaged. It is likely that experiences of blatant discrimination would ‘push’ the individual to run away from society.

Regarding the differential effects of both types of discrimination on well-being, this work sheds light on the contradictory results obtained in the few studies that have been conducted to date. Theory suggests that blatant discrimination is more related to the decrease in subjective well-being than subtle discrimination (20) and this is what most of the findings have indicated. According to our results, it seems so, as long as the internalization

of stigma has taken place. It has also been observed (in people diagnosed with schizophrenia) that subtle discrimination is the most associated with decreased subjective well-being (47), and it seems so, in the case of positive affect, as long as internalization has not taken place. We have seen that, if this process has not occurred, subtle discrimination has much more impact on positive affect than blatant discrimination. In fact, without internalization, blatant discrimination seems to have only a substantial effect on negative emotions, but not on positive ones. Some authors have found that the negative relation between blatant discrimination and positive affect is independent of the emotional and cognitive appraisal of the experience (46). The present results show that an alienated self-concept allows this explicit discrimination to diminish positive emotions. It seems that once the 'self' is impacted, the affective resources for well-being could be injured.

Contribution of internalized stigma and its dimensions

Recently, it has been pointed out that there should be exploration as to how mental illness stigma may shape one's self concept (48). Our findings help us to understand further how internalization of stigma hurts the self-concept of the individual diagnosed with a mental illness. On the one hand, according to previous findings (49), self-esteem seems to be mainly diminished by alienation. This seems to be logical since alienation is the emotional dimension of internalization, linked with emotions concerning feeling worthless. On the other hand, self-efficacy seems to be mainly diminished by stereotype endorsement, which is also logical since it is the cognitive dimension of internalization, linked with beliefs, and since it has been shown that, while social stigma is associated with the stereotype of dangerousness, internalized stigma is more related to the stereotype of incompetence (8). According to the present model, it seems that social withdrawal, the behavioural dimension of internalization, does not involve such a significant damage of self-concept. Perhaps, although being socially withdrawn may be negative for self-concept (the person feels that he is different and rare because he does not socialize), the fact of "not socializing" may, at the same time, shield self-concept from possible discrimination (and from his own comparison with the "normal" people). This could also be the reason why social withdrawal has such a

weak effect on positive affect, which would suggest again that self-concept has much to do with experiencing positive emotions.

Our results not only support the proposition that the effects of mental illness stigma on negative affects are mediated through internalization process (50) but also suggest that this mediation is even stronger in the case of positive affects. This seems to occur especially due to the alienation process. Interestingly, it seems that the fact of internalizing the stigma makes the hurt of discrimination become undifferentiated on both types of affects. As has been shown, the effects of a certain type of discrimination on both affects are equated with the internalization of stigma; that is, there is no longer much difference between the effects on each type of affect.

Research has paid much more attention to the negative emotions that internalized stigma generates than to the positive emotions which internalized stigma prevents from developing. According to the effect size found, it is shown here that, although internalization process significantly impacts both types of affect, it contributes even more to diminish the frequency at which positive emotions are experienced than to increase the frequency with which negative ones emerge.

In spite of this, as exposed, internalization process seems to protect positive affect from subtle discrimination, so this mediation should be analyzed in future research.

Contribution of positive self-concept

The present results indicate that when a person has internalized the stigma but he has an acceptable extent of self-esteem and self-efficacy, the impact of both types of discrimination on both types of affect is reduced. Further, in presence of self-concept there is no longer much difference between the effect of subtle and blatant discrimination on well-being.

Watson’s model (51) explains how internalized stigma results in a decrement of self-esteem and self-efficacy, but does not include how these are leading to emotional consequences. In the present model, we observe that both variables are significantly linked to both types of experienced affects. Further, we see that self-efficacy is influencing them to a greater extent, especially in the case of positive affect, so it would be recommended to pay more

attention to self-efficacy and not almost exclusively to self-esteem as has been the most usual procedure in the literature to date.

We have seen that the negative effects of alienation and social withdrawal on well-being are reduced in the presence of a positive self-concept (which almost annul the effect of social withdrawal on negative affect), and that, curiously, the impact of stereotype endorsement is increased. This could occur due to some kind of cognitive dissonance: On the one hand, the person knows that he is someone valuable and capable, but on the other hand, he assumes that, as a mentally ill person, he is worthless and incapable. This contradiction may be hurting his subjective well-being. Despite this, self-esteem and self-efficacy would protect the individual from the damage caused by stigma on his affective dimension of well-being -especially on positive affects-, so it would be recommended that clinicians and researchers work in both variables in order to improve interventions intended to reduce the effects of stigmatization or to increase well-being of people diagnosed with mental illness. Moreover, it should not be forgotten that if a reduction of stereotype endorsement is achieved, the positive effects of the positive self-concept would be much greater.

According to the effect size, positive self-concept contributes fundamentally to the explained variance of positive affect. Therefore, another contribution of this study is to show that self-esteem and self-efficacy seem to protect, above all, the positive affect.

Some authors have found that the effect of discrimination on life satisfaction (a dimension of subjective well-being) is mediated by beliefs about oneself and about the world (52), and now we see that beliefs about oneself also mediate between discrimination and the emotions experienced (the other dimension of subjective well-being). It would be interesting to study if beliefs about the world mediate likewise in this association.

It has been found that alienation, stereotype endorsement, and social withdrawal significantly increase depressive symptoms, and that this effect is weakened in the presence of self-esteem (53, 54). Self-esteem also mediates the relationship between self-stigma and hope (13). Our results not only support these findings, but also suggest that the

mediating role of self-efficacy between internalization process and experienced emotions is more important than that of self-esteem.

Internalized stigma (9, 12, 13) and self-efficacy (55) have been shown to be related to a lower recovery rate, and it is very likely that emotions are mediating this relationships. Likewise, it has been shown that decreased levels of self-esteem and self-efficacy lead people to not get involved in their life goals (7). The lack of positive emotions like enthusiasm, vitality, and determination is probably mediating between this negative self-concept and pursuing such goals.

Clinical implications

Our findings could be useful in designing interventions aimed to enhance patients' subjective well-being by reducing their internalized stigma and encouraging their positive self-concept. The findings are also relevant for professional mental health practice, since discrimination is a fact and it has been shown that stigma resistance may be a key requirement for recovery (48).

The present results could guide clinicians in identifying which dimension of internalization should be tackled to a greater extent, or which aspect of self-concept should be targeted, in order to improve patient well-being and motivation for change. Some recommendations that emerge from this study for enhancing emotional well-being are: It is essential to pursue a positive self-concept. To this aim, it would be necessary to debunk stereotypes associated with mental illness in order to enhance personal self-efficacy, as well as to foster sense of self so as to raise self-esteem. We believe that the person diagnosed with a mental disorder should not hold a self-view as a "mentally ill person", but as a person who, despite being involved with this circumstance, has a lot of qualities, competences, potentials, and much to contribute to the world.

It has been proposed that recovery may require the person to recapture a fuller sense of self (18). Our results suggest that by promoting a positive self-concept, the person would be more likely to feel enthusiastic, interested, inspired and determined, as well as more active, attentive and strong. In turn, these positive affects could make it easier for the person to

take an active role towards recovery and to be involved in the therapeutic change process. Fortunately, the scientific community is becoming increasingly aware that a person is more vulnerable in the absence of positive emotions (their chemical-physical effects are also well-known).

There are some interventions which have proven effective for reducing self-stigmatizing thinking / attitudes, and for strengthening positive aspects / views of one's self (56): '*Healthy Self-concept',* '*Ending self-stigma'* (EES), and '*Narrative Enhancement and Cognitive Therapy'* (NECT). Specifically, NECT is based on the premise that the rejection of a stigmatized view of oneself requires the construction of a new story about oneself, and it seems to be a promising intervention to promote recovery, as such it has also proven to be effective for improving hope and quality of life (57). We also recommend the *Metacognitive Reflection and Insight Therapy* (MERIT) (58), 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 proven to be an effective therapy to promote recovery from schizophrenia-spectrum disorders.

Some well-intended therapists with unconscious stigmatizing beliefs may be promoting in their patients the adoption of a passive role, and the internalization of stigma. The psychiatric community should be very careful to guard against this. In order to avoid internalized stigma -especially alienation-, its negative consequences and its limiting effects, psychiatrists and psychologists should make it very clear to the patient that the diagnosis does not define who he is, but only what he is going through in this moment of his life.

Limitations

This is not a longitudinal study, therefore, like in all cross-sectional studies, real causal relationships cannot be established. Otherwise, the present sample is not very large and it has been taken from organizations where the participants were already receiving support. If the participants had been recruited otherwise (e.g., at hospitals, through support-groups for relatives…) results would be more generalizable. All these aspects should be improved in future research.

Acknowledgements

We deeply appreciate the time and effort invested by each and every participant in this study. Without their willingness and sincerity this work could never have taken place. Furthermore, we would like to thank all the people who have allowed us access to the participants: Professionals from the *Special Centre for Employment and Labour Integration Arcadia* (*Agustín Serrate Foundation*), and especially to Pedro Pibernat, Sergio Benabarre, Begoña Fuster and Ana Cristina Pérez, for their support; professionals from the *Psychosocial Rehabilitation and Community Support Point*: Yolanda Sánchez, Susana Rivas, Maria Ariza, Victoria Vicente and Lorena Hernández, for their cooperation and the great work they do every day; Nuria Andreu and Sergio Siurana from the *Rey Ardid Foundation*, for making us feel at home; and the psychologist Ana Vallespí for her collaboration, interest and professionalism. At last, but not least, we would like to thank Adelene Chinnick for her great contributions to the drafting of this manuscript. Thanks to all, sincerely.

Conflicts of interest: None.

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

The ethical authorization by the board of the Associations of Psychosocial Rehabilitation Spanish Federation (FEARP) was obtained.

References

1. Stafford MC, Scott RR. Stigma, deviance, and social control. The dilemma of difference. US: Springer; 1986. p. 77-91.

2. Hebl MR, Dovidio JF. Promoting the 'Social' in the Examination of Social Stigmas. Pers Soc Psychol Rev 2005 9(2):156-182.

3. Johnstone M. Stigma, social justice and the rights of the mentally ill: Challenging the status quo. Aust N Z J Ment Health Nurs 2001 12; 10(4):200-209.

4. Sanjuan AM. El estigma de los trastornos mentales: discriminación y exclusión social. 'The stigma of mental disorders: discrimination and social exclusion'. Quaderns de psicología. Int J Psychol 2011; 13(2):7-17. Spanish.

5. Russinova Z, Griffin S, Bloch P, Wewiorski NJ, Rosoklija I. Workplace prejudice and discrimination toward individuals with mental illnesses. J Vocat Rehabil 2011 35(3):227-241.

6. Restrepo, MU, Mora, OL, Rodríguez, ACC. Voces del estigma: Percepción de estigma en pacientes y familias con enfermedad mental. Universitas Médica 2007 48, 207–220.

7. Corrigan PW, Larson JE, Rüsch N. Self-stigma and the "why try" effect: impact on life goals and evidence-based practices. World Psychiatry 2009 06; 8(2):75-81.

8. Corrigan PW, Rao D. On the self-stigma of mental illness: Stages, disclosure, and strategies for change. Can J Psychiat 2012 08; 57(8):464-469.

9. Garay M, Pousa V, Pérez L. La relación entre la percepción subjetiva del funcionamiento cognitivo y el autoestigma con la experiencia de recuperación de las personas con enfermedad mental grave. Rev Asoc Esp Neuropsiq 2014 34(123):459-475

10. Hasson-Ohayon I, Mashiach–Eizenberg M, Lysaker P, Roe D. Self-clarity and different clusters of insight and self-stigma in mental illness. Psychiat Res [serial online]. June 30, 2016 240(1):308-313.

11. Livingston JD, Boyd JE. Correlates and consequences of internalized stigma for people living with mental illness: A systematic review and meta-analysis. Soc Sci Med 2010 12; 71(12):2150-2161.

12. Yanos PT, Roe D, Lysaker PH. The impact of illness identity on recovery from severe mental illness. Am J Psychiat Rehabil 2010 13(2), 73-93.
13. Mashiach-Eizenberg M, Hasson-Ohayon I, Yanos PT, Lysaker, PH, Roe D. Internalized stigma and quality of life among persons with severe mental illness: the mediating roles of self-esteem and hope. Psychiat Res 2013 208(1), 15-20.
14. Brohan E, Slade M, Clement S, Thornicroft G. Experiences of mental illness stigma, prejudice and discrimination: a review of measures. BMC Health Serv Res 2010 01; 10:80-90.
15. Corrigan PW, Bink AB, Schmidt A, Jones N, Rüsch N. What is the impact of self-stigma? Loss of self-respect and the “why try” effect. J Ment Health 2015 1-6.
16. Davidson L, Strauss JS. Sense of self in recovery from severe mental illness. Brit J Med Psychol 1992 06; 65(2):131-145.
17. King EB, Shapiro JR, Hebl MR, Singletary SL, Turner S. The stigma of obesity in customer service: a mechanism for remediation and bottom-line consequences of interpersonal discrimination. J Appl Psychol 2006 91(3), 579.
18. Lysaker P, Buck K, Taylor A, Roe D. Associations of metacognition and internalized stigma with quantitative assessments of self-experience in narratives of schizophrenia. Psychiat Res [serial online]. January 15, 2008 157(1-3):31-38.
19. American Psychiatric Association. Diagnostic and statistical manual of Mental Disorders (4th edn, revised) (DSM-IV-TR). APA; 2000.
20. Molero F, Recio P, García-Ael C, Fuster MJ, Sanjuán P. Measuring dimensions of perceived discrimination in five stigmatized groups. Soc Indic Res 2013 12; 114(3):901-914.
21. Boyd Ritsher J, Otilingam PG, Grajales M. Internalized stigma of mental illness: psychometric properties of a new measure. Psychiat Res 2003 11; 121(1):31.
22. Muñoz M, Sanz M, Pérez-Santos E, de los Ángeles Quiroga, María. Proposal of a socio–cognitive–behavioral structural equation model of internalized stigma in people with severe and persistent mental illness. Psychiat Res 2011 186(2):402-408.

23. Lysaker PH, Tunze C, Yanos PT, Roe D, Ringer J, Rand K. Relationships between stereotyped beliefs about mental illness, discrimination experiences, and distressed mood over 1 year among persons with schizophrenia enrolled in rehabilitation. Soc Psychiatry Psychiatr Epidemiol 2012 47(6), 849-855.

24. Expósito F, Moya M. Soledad y apoyo social. 'Loneliness and social support'. Rev Psicol Soc 1999 14(2-3):297-316. Spanish.

25. Rosenberg M. Society and the adolescent self-image. Princeton: Princeton University Press; 1965.

26. Sanjuán-Suárez P, Pérez-García AM, Bermúdez-Moreno J. Escala de autoeficacia general: Datos psicométricos de la adaptación para población española. 'The general self-efficacy scale: Psychometric data from the Spanish adaptation'. Psicothema 2000 12:509-513. Spanish.

27. Schwarzer R. Self-efficacy in the adoption and maintenance of health behaviors: Theoretical approaches and a new model. In: Schwarzer R, editor. Self-efficacy: Thought control of action. Washington, DC, US: Hemisphere Publishing Corp; 1992. p. 217-243.

28. Sandín B, Chorot P, Lostao L, Joiner TE, Santed MA, Valiente RM. Escalas PANAS de afecto positivo y negativo: Validación factorial y convergencia transcultural. 'The PANAS Scales of Positive and Negative Affect: Factor analytic validation and cross-cultural convergence'. Psicothema 1999 02; 11(1):37-51. Spanish.

29. Watson D, Clark LA, Tellegen A. Development and validation of brief measures of positive and negative affect: The PANAS scales. J Pers Soc Psychol 1988 06; 54(6):1063-1070.

30. Chin WW. The partial least squares approach to structural equation modeling. Modern methods for business research 1998; 295(2):295-336.

31. Henseler J, Ringle CM, Sinkovics RR. The use of partial least squares path modeling in international marketing. Adv Int Mar 2009 20(1):277-319.

32. Ringle CM, Wende S, Will A. SmartPLS 2. Hamburg: SmartPLS; 2005.

33. Henseler J, Chin WW. A Comparison of Approaches for the Analysis of Interaction Effects between Latent Variables Using Partial Least Squares Path Modeling. Struct Equ Model: A Multidiscipl J 2010 01/01; 17(1):82-109.

34. Hair JF, Black WC, Babin BJ, Anderson RE, Tatham RL. Multivariate data analysis. Pearson Prentice Hall Upper Saddle River, NJ; 2006.

35. Churchill GA. A paradigm for developing better measures of marketing constructs. J Marketing Res 1979 02; 16(1):64-73.

36. Hair Jr JF, Hult GTM, Ringle C, Sarstedt MA primer on partial least squares structural equation modeling (PLS-SEM). Sage Publications; 2013.

37. Nunnally J, Bernstein I. Psychometric Theor. 3rd edition. New York: McGraw Hill; 1994.

38. Fornell C, Larcker DF. Evaluating structural equation models with unobservable variables and measurement error. J Marketing Res 1981 02; 18(1):39-50.

39. Falk RF, Miller NB. A primer for soft modeling. Akron, OH, US: University of Akron Press; 1992.

40. Albers S. PLS and success factor studies in marketing. Handbook of Partial least squares: Springer; 2010. p. 409-425.

41. Cohen J. Statistical power analysis for the behavioural sciences. Hillsdale, NJ: Lawrence Erlbaum; 1988.

42. Livingston J. Self-Stigma and Quality of Life among People with Mental Illness Who Receive Compulsory Community Treatment Services. J Community Psychol 2012 08/01; 40(6):699-714.

43. Barreto M, Ellemers N. Current issues in the study of social stigma: Some controversies and unresolved issues. J Soc Iss 2010 09; 66(3):431-445.

44. Drapalski AL, Lucksted A, Perrin PB, Aakre JM, Brown CH, DeForge BR, et al. A model of internalized stigma and its effects on people with mental illness. Psychiat Serv 2013 03/01; 64(3):264-269.

45. Kim WJ, Song YJ, Ryu H, Ryu V, Kim JM, Ha RY, et al. Internalized stigma and its psychosocial correlates in Korean patients with serious mental illness. Psychiat Res 2015 02/28; 225(3):433-439.

46. Noh S, Kaspar V, Wickrama KAS. Overt and subtle racial discrimination and mental health: Preliminary findings for Korean immigrants. Am J Public Health 2007 97(7), 1269-1274.

47. Magallares A, Perez-Garin D, Molero F. Social Stigma and well-being in a sample of schizophrenia patients. Clin Schizophr Relat Psychoses 2013 05/03:1-20.

48. Firmin, Ruth L, Luther L, Paul H, Lysaker, Minor KS, Salyers MP. Stigma resistance is positively associated with psychiatric and psychosocial outcomes: A meta-analysis. Schizophr Res 2016 175, no. 1-3: 118-128

49. Ritsher, JB, Phelan, JC. Internalized stigma predicts erosion of morale among psychiatric outpatients. Psychiat Res 2004 129(3), 257-265.

50. Norman RMG, Windell D, Lynch J, Manchanda R. Parsing the relationship of stigma and insight to psychological well-being in psychotic disorders. Schizophr Res 2011 12; 133(1-3):3-7.

51. Watson AC, Corrigan P, Larson JE, Sells M. Self-stigma in people with mental illness. Schizophr Bull 2007 11; 33(6):1312-1318.

52. Schaafsma, J. Through the lens of justice: Just world beliefs mediate relationships between perceived discrimination and subjective well-being. Int J Intercult Relat 2013 37(4), 450-458.

53. Nabors L, Yanos P, Lysaker P, et al. Stereotype endorsement, metacognitive capacity, and self-esteem as predictors of stigma resistance in persons with schizophrenia. Compr Psychiat [serial online]. May 2014 55(4):792-798.

54. Meyer, B. Coping with severe mental illness: Relations of the Brief COPE with symptoms, functioning, and well-being. J Psychopathol Behav Assess 2001 23(4), 265-277.

55. Xie H. Personal strengths and recovery in adults with serious mental illnesses. Dissertation Abstracts International: Section B: The Sciences and Engineering. US: ProQuest Information & Learning; 2013.

56. Yanos P, Lucksted A, Drapalski A, Roe D, Lysaker P. Interventions targeting mental health self-stigma: A review and comparison. Psychiatr Rehabil J [serial online]. June 2015 38(2):171-178.

57. Roe D, Hasson-Ohayon I, Mashiach-Eizenberg M, Derhy O, Lysaker P, Yanos P. Narrative Enhancement and Cognitive Therapy (NECT) Effectiveness: A Quasi-Experimental Study. J Clin Psychol [serial online]. April 2014 70(4):303-312.

58. Lysaker P, Roe D. Integrative psychotherapy for schizophrenia: Its potential for a central role in recovery oriented treatment. Journal Clin Psychol [serial online]. February 2016 72(2):117-122.

Table 1. (Extended version) Individual loadings, reliability and average variance extracted (1/2).

Latent Variable	Indicator	λ	t	CR	α	AVE
Blatant Discrimination	1. I felt personally rejected for having MI.	.737	10.75	.91	.88	.53
	2. Personally, I have been treated unfairly for having MI.	.804	13.56			
	3. I have been discriminated against at work for having MI.	.786	16.72			
	4. I have been discriminated against in health services for having MI.	.689	16.18			
	5. I have been discriminated against in the legal field for having MI.	.656	8.88			
	6. I have suffered rejection in my everyday social relations for having MI.	.808	18.32			
	7. I have been rejected by some people in my family for having MI.	.703	8.74			
	8. I have suffered rejection in affective and sexual relationships for having MI.	.741	10.87			
	9. I have been discriminated against by a private institution (banks, insurance...) for having MI.	.578	7.33			
Subtle Discrimination	10. Even in cases where people seem to accept me, I think that there is some mistrust, because I am a person with MI.	.835	22.30	.87	.78	.69
	11. Although sometimes there is no explicit rejection, people treat me differently when they know I have MI.	.845	14.53			
	12. I feel that people distrust me for having MI.	.814	13.26			
Alienation	1. I feel out of place in the world because I have a MI.	.725	11.30	.88	.83	.55
	2. Having MI has spoiled my life.	.681	7.90			
	3. People without MI couldn't possibly understand me.	.532	4.49			
	4. I am embarrassed / ashamed that I have a MI.	.768	15.10			
	5. I am disappointed in myself for having MI.	.880	30.98			
	6. I feel inferior to others who don't have MI.	.819	20.71			
Stereotype Endorsement	7. Stereotypes about mentally ill apply to me.	.539	5.21	.83	.76	.43
	8. People can tell I have a MI by the way I look.	.680	8.98			
	9. Mentally ill people tend to be violent.	.457	3.94			
	10. Because I have MI, I need others to make most decisions for me.	.612	5.14			
	11. People with MI cannot live a good, rewarding life.	.793	15.70			
	12. Mentally ill people shouldn't get married.	.650	5.97			
	13. I can't contribute anything to society because I have a MI.	.755	13.38			
Social Withdrawal	19. I don't talk about myself much because I don't want to burden others with my MI.	.508	4.73	.86	.81	.52
	20. I don't socialize as much as I used to because MI might make me look / behave 'weird'.	.832	25.34			
	21. Negative stereotypes about MI keep me isolated from the 'normal' world.	.807	16.85			
	22. I stay away from social situations in order to protect my family or friends from embarrassment.	.749	12.78			
	23. Being around people who don't have a MI makes me feel out of place or inadequate.	.666	6.56			
	24. I avoid getting close to people who don't have a MI to avoid rejection.	.725	11.43			

Note: CR = Composite Reliability; α = Cronbach's Alpha; AVE = Average Variance Extracted; MI = Mental illness.

Table 1. (Extended version) Individual loadings, reliability and average variance extracted (2/2).

Variable	Indicator	λ	t	CR	α	AVE
Self-esteem	2. All in all, I am inclined to feel that I am a failure.	.768	16.40	.89	.85	.58
	4. I am able to do things as well as most other people.	.553	5.39			
	6. I take a positive attitude toward myself.	.787	14.62			
	7. On the hole, I am satisfied with myself.	.786	15.02			
	9. I certainly feel useless at times.	.849	18.82			
	10. At times I think I am no good at all.	.800	19.18			
Self-efficacy	1. If someone opposes me, I can find the way to get what I want.	.643	7.51	.93	.91	.57
	2. I can manage to solve difficult problems if I try hard enough.	.676	9.69			
	3. It is easy for me to stick to my aims and accomplish my goals.	.685	9.61			
	4. I am confident that I could deal efficiently with unexpected events.	.775	12.40			
	5. Thanks to my resourcefulness, I know how to handle unforeseen situations.	.755	17.35			
	6. I can remain calm when facing difficulties because I can rely on my coping abilities.	.779	14.88			
	7. No matter what comes my way, I'm usually able to handle it.	.865	21.89			
	8. I can solve most problems if I invest the necessary effort.	.833	22			
	9. If I am in a bind, I can usually think of something to do.	.827	16.54			
	10. When I am confronted with a problem, I can usually find several solutions.	.721	8.74			
Positive Affect	1 Attentive	.693	9.74	.93	.92	.59
	5. Inspired	.728	12.44			
	6. Proud	.808	23.82			
	7. Enthusiastic	.828	23.26			
	10. Strong	.794	15.78			
	11. Interested	.680	8.02			
	12. Excited	.832	17.69			
	16. Determined	.816	15.33			
	17. Alert	.766	14.76			
	19. Active	.737	10.73			
Negative Affect	2. Scared	.753	15.08	.91	.88	.52
	3. Irritable	.613	5.84			
	8. Hostile	.698	8.36			
	9. Guilty	.698	9.00			
	13. Jittery	.747	11.35			
	14. Upset	.835	21.18			
	15. Nervous	.812	16.52			
	18. Distressed	.603	5.56			
	20. Afraid	.725	10.92			

Note: CR = Composite Reliability; α = Cronbach's Alpha; AVE = Average Variance Extracted