

# Is persecution deserved?

## A study on a non-clinical Italian sample using Persecution and Deservedness Scale (PaDS)

D. Serrone <sup>1</sup>, P. Stratta <sup>2</sup>, I. Riccardi <sup>3</sup>,  
S. Parnanzone <sup>1</sup>, F. Logozzo <sup>1</sup>,  
F. Pacitti <sup>1-3</sup>, A. Rossi <sup>1-3</sup>

<sup>1</sup> Psychiatry Unit, San Salvatore Hospital, L'Aquila, Italy; <sup>2</sup> Department of Mental Health, L'Aquila, Italy; <sup>3</sup> DISCAB, Department of Clinical and Applied Sciences and Biotechnology University of L'Aquila, Italy

### Summary

#### Objectives

To achieve a validation of the Persecution and Deservedness Scale (PaDS) in an Italian convenience sample from general population. To catch the link between paranoia, self-esteem, depressive symptoms and aberrant salience assuming that these constructs could be related to paranoia.

#### Methods

312 individuals provided complete data on Persecution and Deservedness Scale, The Beck Depression Inventory-Fast Screen, The Aberrant Salience Inventory, The Self-Esteem Rating Scale. Construct and Concurrent validity were assessed.

#### Results

PaDS subscales were internally reliable and showed correlations with the psychological measures.

#### Conclusions

PaDS is able to measure both severity of persecution and the correlated sense of deservedness. People from general population, experience sub-clinical persecution more probably in relation to some affects of sadness.

#### Key words

PaDS • Persecution • Deservedness • Paranoia

### Introduction

Despite the growing interest into the investigation of underlying constructs of paranoid thinking both in clinical and non-clinical population, few measures deeply explore psychological-related constructs of persecution <sup>1</sup>.

This assumes a bigger weight if we consider that the DSM-5 definition of delusion describes it as an unchanging belief, not necessary false, that is indisputable by evidence and often concern existential themes where emotions, especially anxiety, fear and self-concepts are strongly involved. So far, what it remains unclear but is so relevant to a full understanding of the psychotic experience is the role played by inner schema and related emotions. Many authors in the last two decades have theorized about how an individual self-concept, including both self-esteem and self-schemas, low mood and negative schematic beliefs may relate to the formation and maintenance especially of persecutory delusions <sup>2</sup> <sup>3</sup> <sup>4</sup>. According to some authors by studying self-esteem is even possible to intercept different types of paranoia <sup>5</sup> or its dynamic and fluctuating aspects <sup>6</sup> <sup>7</sup>.

#### Correspondence

Alessandro Rossi  
DISCAB, Department of Clinical and Applied  
Sciences and Biotechnology, University of  
L'Aquila, Italy, via Vetoio (Coppito 2), 67100  
Coppito, L'Aquila, Italy •  
E-mail: alessandro.rossi@cc.univaq.it

From a recent systematic review<sup>8</sup> few studies investigated whether the degree to which the persecution was thought to be deserved (i.e. poor-me *versus* bad-me paranoia) is an influential feature of self-esteem inpatients or delusion-prone people. Some studies on people with persecutory delusions found negative correlations between perceived deservedness and self-esteem<sup>9,10</sup>. However, comparable degrees of self-esteem between poor-me paranoia patients and healthy sample<sup>11</sup> has been reported.

Interestingly, one study found a similar relation also in non-clinical sample<sup>12</sup> and in healthy delusion-prone people<sup>13</sup>.

More specifically, Melo et al. (2009) evinced that there is a lack of measures able to intercept the presence of both paranoia and deservedness, administrable to both clinical and not clinical samples. To this purpose they developed the Persecution and Deservedness Scale (PaDS) getting a valid measure of paranoia and deservedness for more than one culture (UK and Portuguese people).

In our study we investigated factorial structure and reliability of both persecution and deservedness scales considering age, gender and education of an Italian non-clinical sample. In line with Melo et al. study (2009), we expected reliability and validity of the PaDS also in a different culture.

We also hypothesized that PaDS is able to catch the assumed link between paranoia and the self-esteem concept and relation with unusual salience experience. Unlike Melo et. al. (2009) our non-clinical sample come from general population, extending previous evidence from student samples.

## Methods

### Measures

The Persecution and Deservedness Scale (PaDS) is a brief measure for assessing both the severity of paranoid thinking and the degree of perceived deservedness of persecution. It is composed by two subscales, one measuring persecution, the other the deservedness where deservedness ratings are orthogonal to persecution ratings. If so, deservedness cannot be scored if the person does not feel persecuted.

The persecution subscale (P) has 10 statements of persecutory content, some derived from Fenigstein and Vanable's scale<sup>14</sup>, the others from Melo et al. experience of clinical practice with paranoid patients, each of which could be scored from 0 to 4 (anchors: 0, 'certainly false'; 1, 'possibly false'; 2, 'unsure'; 3, 'possibly true' and 4, 'certainly true').

A deservedness item follows each persecution item and should be completed only if the person scores greater than 1 on the related persecution item; as for P, it is scored 0-4.

Translation of the PaDS into Italian was carried out by one of the authors (IR). Further, a back-translation of the questionnaire into English by a native colleague fluent in both languages was made (see enclosure).

The Beck Depression Inventory-Fast Screen (BDI-FS<sup>15</sup>), contains 7 cognitive and affective items to assess depression. Each item rates on a 4-point scale (0-3). It is scored by summing ratings for each item (range 0-21). The BDI-FS covers symptoms of sadness, pessimism, past failure, loss of pleasure, self-dislike, self-criticalness, and suicidal thoughts and wishes during the "past 2 weeks including today". The cut-off score is 4.

The Aberrant Salience Inventory (ASI<sup>16</sup>) is a 29-item yes-no questionnaire composed by five subscales measuring different aspects of the experience of aberrant salience including feelings of increased significance, sharpening of senses, impending understanding, heightened emotionality and heightened cognition. The Self-Esteem Rating Scale (SERS<sup>17</sup>), is a widely used self-report instrument for evaluating individual self-esteem. It is a uni-dimensional 40-item scale that assesses global self-worth by measuring both positive and negative feelings about the self. All items are answered using a 7-point scale format ranging from never to always.

### Participants and procedure

The study participants included 312 individuals who provided complete data on the variables of interest. The sample was balanced with respect to gender (40.7% males and 59.3% females), and representative of the adult population with respect to age (range = 20 to 65 years old; M = 32.8, SD = 12.8).

Students at the University of L'Aquila collected the data. Each student, after being briefed on the general aims of the research and instructed in how to administer the instruments, was requested to collect data from six people, equally distributed by gender and age.

All the subjects provided written informed consent after a complete description of the study that was approved by the local ethics committee. Statistical analyses were done with SPSS 20 version. A factorial analysis with Principal Component and Varimax Rotation was conducted.

## Results

Persecutory responses: factorial structure and reliability  
The Kaiser-Meyer-Olkin measure of overall sampling adequacy was good, 0.88 and all items had individual measures of sampling adequacy > 0.83.

Only one factor was extracted that had an eigenvalue greater than one, which accounted for 41.4% of the variance in the item responses. The component loadings were good with nine comprised between .53 and .78 and one equal to .45. The Cronbach Alpha for the 10 persecution items was .83 (Table I).

**TABLE I.** Factor loadings of the 10 Persecution subscale.

Persecution items	Factor loadings
There are times when I worry that others might be plotting against me.	.70
I often find it hard to think of anything other than the negative ideas others have about me	.71
My friends/others often tell me to relax and stop worrying about being deceived or harmed	.63
Every time I meet someone for the first time, I'm afraid they've already heard bad things about me	.60
I'm often suspicious of other people's intentions towards me	.78
Sometimes, I just know that people are talking critically about me.	.65
There are people who think of me as a bad person	.53
People will almost certainly lie to me.	.67
I believe that some people want to hurt me deliberately	.65
You should only trust yourself	.45

**Deservedness responses: factorial structure and reliability**

The Kaiser-Meyer-Olkin measure of overall sampling adequacy was good, 0.7. Four items had only moderate individual measures of sampling adequacy (greater than .5, smaller than .7), the rest were greater than .7.

Three components with eigenvalues greater than 1 were extracted. The first accounting for 40% of the variance and the second 15.6 and the third 10.2. However, examination of the scree-plot suggested a uni-dimensional solution. When only one factor was extracted, it accounted for 40% of the variance in the item responses. The component loadings were comprised between .40 and .74 and just one equal to .3 (Table II).

Table III shows the descriptive values of the assessed variables and the correlation between the two PaDS subscales and well validated measures of depression, aberrance salience and self-esteem.

Scores on the BDI-FS correlated strongly with the 10-item Persecution subscale of the PaDS ( $r = .42$ ,

$p < .001$ ) and moderately with the deservedness subscale ( $r = .24$ ,  $p < .001$ ). ASI total score positively correlated with PaDS Persecution, while no significant correlations emerged with the PaDS Deservedness subscale. Significant correlations emerged between PaDS Persecution and the SERS total score. ( $r = -.39$ ) (Fig. 1).

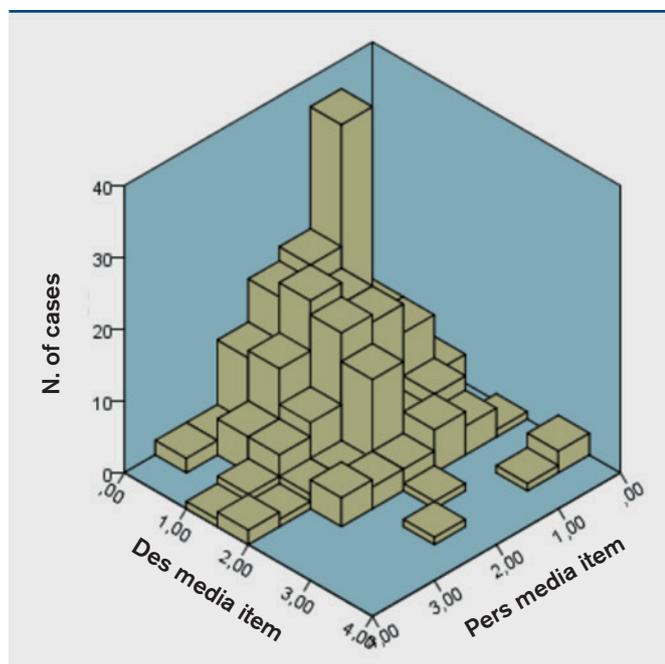
The above results were based upon individuals reporting at least one deservedness response as indicated by Melo et al. (2009).

The mean persecution ratings were  $13.02 \pm 7.84$ , significantly higher among females compared to males: mean 1.30 (SD 0.75) and mean 1.53 (SD 0.70) respectively (Mann-Whitney  $z = 2.30$ ,  $p < .05$ ,  $n = 311$ ). The mean deservedness ratings were  $8.37 \pm 7.15$ , not also significantly different between males and females (Mann-Whitney  $z = .56$ ,  $p = \text{NS}$ ).

To investigate the differences between high vs low deservedness, we selected the 33 third percentile of Deservedness distribution ( $n = 122$ ) and calculated

**TABLE II.** Factor loadings of the 10 Deservedness subscale.

Deservedness items	Factor loadings
Do you feel like you deserve others to plot against you?	.40
Do you feel like you deserve people to have negative ideas about you?	.53
Do you feel like you deserve being deceived or harmed?	.74
Do you feel like you deserve to have people hearing bad things about you?	.36
Do you feel like you deserve people having bad intentions towards you?	.70
Do you feel like you deserve people to talk critically about you?	.56
Do you feel like you deserve people to think of you as a bad person?	.66
Do you feel like you deserve people to lie to you?	.65
Do you feel like you deserve people to hurt you deliberately?	.51
Do you feel like you deserve to have no one you can trust?	.26



**FIGURE 1.** Joint distribution of PaDS-10 Deservedness (*Des media item*) and Persecution (*Pers media item*) scores.

t-test unpaired comparison versus the remaining 154 subjects, for SERS, ASI, BDI-FS and age. SERS and BDI-FS significantly differ at p.05 and p. 001 level, respectively.

### Discussion

To our knowledge, this is the first study using PaDS in an Italian sample.

Our study aimed to contribute to the growing interest into the understanding and investigation of self-constructs underlying delusions and paranoid thinking.

First, the study aimed to provide a validation of PaDS in

a non-clinical sample, from general population, extending previous evidence from student samples.

Similarly to Melo et al study (2009) we found high alpha coefficient, confirming that PaDS is able to measure both severity of persecution and the sense of deservedness, separately. This is not achievable by other existing measures of paranoia<sup>18</sup>.

In our sample, persecution, differently from deservedness, shows an association to a sub-clinical perceived unusual assignment of significance to innocuous stimuli, the aberrant salience<sup>19</sup> as measured by ASI, corroborating the effectiveness of PaDS in measuring ‘hypersensitivity to interpersonal cues’. The presence of these sub-clinical subjective experiences, as reported in different non-clinical sample<sup>20 21</sup>, is not surprising, if we consider that even psychotic symptoms are a relatively common experience in the general population.

These data seem to describe the experience of feeling a paranoid state of mind, supporting the ability of PaDS to be associated with ASI psychosis-prone thinking.

We found that the deservedness scores of this non-clinical sample were significantly similar to Melo et al (2009) study results. Even joint distribution of PaDS scores are very similar to Melo et al., 2009 ones.

Trower and Chadwick (1995) argued that there are two types of paranoia: ‘poor-me’ (PM) paranoia in which individuals ‘tend to blame others, to see others as bad, and to see themselves as victims’, as they believe others are plotting to harm them without any justification and ‘bad-me/punishment’ (BM) paranoia, on the other hand, where individuals ‘tend to blame themselves, see themselves as bad, and view others as justifiably punishing them’.

In our study we deduce that people from general population experience sub-clinical persecution more probably in relation to some affects of sadness and to a more general negative self-esteem, as also evinced by Chadwick et al. (2005). Results confirmed that BM para-

**TABLE III.** Descriptive statistics and correlations (Pearson  $r > .25, p < .001$  are reported).

	N	Descriptive statistics		Correlations (Pearson r)		
		Mean	Standard deviation	Age	total SERS	total ASI
Age (ys)	310	32.38	12.86			
Educational level (ys)	290	15.68	3.16			
BDI-FS total score	310	.29	.38			-.48
SERS total score	312	3.29	1.33	.30		
ASI total score	310	.53	.18			
Persecution	311	13.02	7.85	-.29	-.39	.29
Deservedness	276	8.38	7.15			

*The Beck Depression Inventory-Fast Screen (BDI-FS); The Aberrant Salience Inventory (ASI); The Self-Esteem Rating Scale (SERS)*

noia (high deservedness scores) as measured by PaDS seems to be closer to depressed mood. Moreover, higher deservedness is associated with lower self-esteem and depressive symptoms.

This result remind data from studies on cognitive models of psychosis where negative emotions as anxiety, fear, sadness seem to be a core feature into the formation and the maintenance of paranoid thinking.

PaDS is an interesting and useful measure of paranoid thinking and perceived deservedness of persecution,

in non-clinical population, which can provide a portion of comprehension into the complex and multi-factorial picture of delusion. This is particular true if we consider psychosis along a continuum from normal to clinical population<sup>20,21</sup>. Finally, our study confirms that paranoid thinking in a non-clinical population appears to be bad-me linked.

### Conflict of interest

None.

## ENCLOSURE: PADS\_ITALIAN VERSION

Persecution and Deservedness Scale (PaDS) – Versione Italiana

Per favore, leggi attentamente ciascuna delle seguenti affermazioni e indica in che misura queste sono vere o false per te, cercando il numero corrispondente.

### 1. Ci sono momenti in cui temo che gli altri potrebbero complottare contro di me.

Sicuramente falso	Forse falso	Non so	Forse vero	Sicuramente vero
0	1	2	3	4

Se hai risposto da 2 in su all'ultima domanda, per favore rispondi anche alla domanda seguente:

#### 1.1 Senti di meritare che gli altri complottino contro di te?

Assolutamente no	Forse no	Non so	Forse si	Moltissimo
0	1	2	3	4

### 2. Spesso non riesco a pensare altro che alle idee negative che gli altri hanno su di me.

Sicuramente falso	Forse falso	Non so	Forse vero	Sicuramente vero
0	1	2	3	4

Se hai risposto da 2 in su all'ultima domanda, per favore rispondi anche alla domanda seguente:

#### 2.1 Senti di meritare che gli altri abbiano idee negative su di te?

Assolutamente no	Forse no	Non so	Forse si	Moltissimo
0	1	2	3	4

### 3. Spesso i miei amici mi dicono di rilassarmi e di smettere di preoccuparmi di essere imbrogliato o danneggiato

Sicuramente falso	Forse falso	Non so	Forse vero	Sicuramente vero
0	1	2	3	4

Se hai risposto da 2 in su all'ultima domanda, per favore rispondi anche alla domanda seguente:

#### 3.1 Senti di meritare di essere imbrogliato o danneggiato?

Assolutamente no	Forse no	Non so	Forse si	Moltissimo
0	1	2	3	4

### 4. Ogni volta che incontro qualcuno per la prima volta, ho paura che abbia già sentito brutte cose sul mio conto.

Sicuramente falso	Forse falso	Non so	Forse vero	Sicuramente vero
0	1	2	3	4

Se hai risposto da 2 in su all'ultima domanda, per favore rispondi anche alla domanda seguente:

#### 4.1 Credi di meritare che ci siano persone che sentono brutte cose sul tuo conto?

Assolutamente no	Forse no	Non so	Forse si	Moltissimo
0	1	2	3	4

segue

continua *Enclosure: PaDS\_Italian version*

### 5. Spesso sono sospettoso rispetto alle intenzioni degli altri verso di me.

Sicuramente falso	Forse falso	Non so	Forse vero	Sicuramente vero
0	1	2	3	4

Se hai risposto da 2 in su all'ultima domanda, per favore rispondi anche alla domanda seguente:

### 5.1 Senti di meritare che ci siano persone che hanno cattive intenzioni verso di te?

Assolutamente no	Forse no	Non so	Forse si	Moltissimo
0	1	2	3	4

### 6. A volte so che le persone stanno parlando di me in modo critico.

Sicuramente falso	Forse falso	Non so	Forse vero	Sicuramente vero
0	1	2	3	4

Se hai risposto da 2 in su all'ultima domanda, per favore rispondi anche alla domanda seguente:

### 6.1 Senti di meritare che le persone parlino di te in modo critico?

Assolutamente no	Forse no	Non so	Forse si	Moltissimo
0	1	2	3	4

### 7. Ci sono persone che pensano io sia una brutta persona.

Sicuramente falso	Forse falso	Non so	Forse vero	Sicuramente vero
0	1	2	3	4

Se hai risposto da 2 in su all'ultima domanda, per favore rispondi anche alla domanda seguente:

### 7.1 Senti di meritare che le persone pensino che tu sia una cattiva persona?

Assolutamente no	Forse no	Non so	Forse si	Moltissimo
0	1	2	3	4

### 8. Quasi sicuramente le persone mi mentiranno.

Sicuramente falso	Forse falso	Non so	Forse vero	Sicuramente vero
0	1	2	3	4

Se hai risposto da 2 in su all'ultima domanda, per favore rispondi anche alla domanda seguente:

### 8.1 Senti di meritare che le persone ti mentano?

Assolutamente no	Forse no	Non so	Forse si	Moltissimo
0	1	2	3	4

### 9. Credo che alcune persone vogliano farmi del male deliberatamente.

Sicuramente falso	Forse falso	Non so	Forse vero	Sicuramente vero
0	1	2	3	4

Se hai risposto da 2 in su all'ultima domanda, per favore rispondi anche alla domanda seguente:

### 9.1 Senti di meritare che le persone ti facciano del male deliberatamente?

Assolutamente no	Forse no	Non so	Forse si	Moltissimo
0	1	2	3	4

### 10. Bisognerebbe fidarsi solo di se stessi.

Sicuramente falso	Forse falso	Non so	Forse vero	Sicuramente vero
0	1	2	3	4

Se hai risposto da 2 in su all'ultima domanda, per favore rispondi anche alla domanda seguente:

### 10.1 Senti di meritare di non avere nessuno di cui fidarti?

Assolutamente no	Forse no	Non so	Forse si	Moltissimo
0	1	2	3	4

## References

- <sup>1</sup> Melo S, Corcoran R, Shryane N, et al. *The persecution and deservedness scale*. *Psychol Psychother* 2009;82:247-60.
- <sup>2</sup> Freeman D, Garety PA, Bebbington PE, et al. *Psychological investigation of the structure of paranoia in a non-clinical population*. *Br J Psychiatry* 2005;186:427-35.
- <sup>3</sup> Krabbendam L, Janssen I, Bak M, et al. *Neuroticism and low self-esteem as risk factors for psychosis*. *Soc Psychiatry Psychiatr Epidemiol* 2002;37:1-6.
- <sup>4</sup> Martin JA, Penn DL. *Social cognition and subclinical paranoid ideation*. *Br J ClinPsychol* 2001;40:261-5.
- <sup>5</sup> Trower P, Chadwick P. *Pathways to defense of the self: a theory of two types of paranoia*. *Clin Psychol Sci Pract* 1995;2:263-78.
- <sup>6</sup> Bentall RP, Kinderman P, Kaney S. *The self, attributional processes and abnormal beliefs: toward a model of persecutory delusions*. *Behav Res Ther* 1994;32:331-41.
- <sup>7</sup> Bentall RP, Corcoran R, Howard R, et al. *Persecutory delusions: a review and theoretical integration*. *Clin Psychol Rev* 2001;21:1143-92.
- <sup>8</sup> Kesting ML, Lincoln TM. *The relevance of self-esteem and self-schemas to persecutory delusions: a systematic review*. *Compr Psychiatry* 2013;54:766-89.
- <sup>9</sup> Chadwick PDJ, Trower P, Juusti-Butler T-M, et al. *Phenomenological evidence for two types of paranoia*. *Psychopathology* 2005;38:327-33.
- <sup>10</sup> Fowler D, Hodgekins J, Garety P, et al. *Negative cognition, depressed mood, and paranoia: a longitudinal pathway analysis using structural equation modeling*. *Schizophr Bull* 2012;38:1063-73.
- <sup>11</sup> Fornells-Ambrojo M, Garety PA. *Bad me paranoia in early psychosis: a relatively rare phenomenon*. *Br J Clin Psychol* 2005;44:521-8.
- <sup>12</sup> Pickering L, Simpson J, Bentall RP. *Insecure attachment predicts proneness to paranoia but not hallucinations*. *Pers Individ Differ* 2008;44:1212-24.
- <sup>13</sup> Combs DR, Penn DL, Chadwick P, et al. *Subtypes of paranoia in a non-clinical sample*. *Cogn Neuropsychiatry* 2007;12:537-53.
- <sup>14</sup> Fenigstein A, Venable PA. *Paranoia and self-consciousness*. *J Pers Soc Psychol* 1992;62:129-38.
- <sup>15</sup> Beck AT, Steer RA, Brown GK. *BDI: Fast screen for medical patients manual*. San Antonio (TX): The Psychological Corporation 2000.
- <sup>16</sup> Cicero DC, Kerns JG, McCarthy DM. *The aberrant salience inventory: a new measure of psychosis proneness*. *Psychol Assess* 2010;22:688-701.
- <sup>17</sup> Nugent WR, Thomas JW. *Validation of a clinical measure of self-esteem*. *Res Soc Work Pract* 1993;3:208-18.
- <sup>18</sup> Rawlings D, Freeman JL. *A questionnaire for the measurement of paranoia/suspiciousness*. *Br J Clin Psychol* 1996;35:451-61.
- <sup>19</sup> Kapur S. *Psychosis as a state of aberrant salience: a framework linking biology, phenomenology, and pharmacology in schizophrenia*. *Am J Psychiatry* 2003;160:13-23.
- <sup>20</sup> van Os J, Hanssen M, Bijl RV, et al. *Strauss (1969) revisited: a psychosis continuum in the general population?* *Schizophr Res* 2000;45:11-20.
- <sup>21</sup> van Os J, Hanssen M, Bijl RV, et al. *Prevalence of psychotic disorder and community level of psychotic symptoms: an urban-rural comparison*. *Arch Gen Psychiatry* 2001;58:663-8.