Self-evaluation and the personality disorders

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Abstract

In all 502 adults rated their attractiveness, health, IQ and EQ and completed an established measure of the personality disorders (PDs). The self-ratings were highly inter-correlated and a total self-evaluation score was computed. The self-rated score was correlated with the 14 Personality Disorders showing ten significant, mostly negative, correlations. A regression with self-ratings as the criterion variable showed three PDs positively (Histrionic, Narcissistic and Obsessive Compulsive) and two negatively (Depressive and Schizoid) associated with the positive self-evaluation. Factor analysis suggested two factors (Cluster A, B, and Cluster C) underlying the PDs. Self-evaluations were correlated significantly but differently with both factors: positively with Cluster B (Moving Against People) and negatively with Cluster A+C (Moving Away and Toward People). Implications and limitations are acknowledged.

Introduction

This study is concerned with the relationship between self-evaluations and the personality disorders. The research question concerns the self-image of those with sub-clinical personality disorders. Of all the debates in psychiatry the existence, classification and treatment of the PDs remains one of the most controversial [1]. Personality disorders influence the *sense of self* - the way people think and feel about themselves and how other people see them. The disorders often powerfully influence *interpersonal relations*. People with personality disorders have difficulty expressing and understanding emotions. It is the intensity with which they express them and their variability that, in part, makes them odd. More importantly they often have serious problems with self-control [2].

This study looked at the relationship between self-esteem/image and the PDs. Low self-esteem has been implicated in a large number of mental illnesses including addictions, depressions and relationship problems. A review of the literature shows very few papers in the area. An exception is a modest study Ichikawa and Mochizuki [3] who asked students (N=66) to complete items about PD traits, trait self-esteem, and contingent self-esteem. Trait self-esteem showed negative relationships with Borderline, Dependent, and Avoidant PD traits, and showed a positive relationship with Histrionic PD traits. There was also a positive relationship between Borderline PD traits and variability of self-esteem.

Many of the personality disorders, particularly Borderline and Narcissistic disorders are particularly characterised by identity and self-concept problems. For self-evident reasons the self-concept and self-evaluation of three of the PDs has been consistently studied: the clinically low self-evaluation with Depressive PD, the high evaluations of those with Narcissistic PD [4] and the oscillating self-evaluations of those with Borderline PD [5]. However, it seems that many of the other PDs have been overlooked. For instance, how to people with Obsessive Compulsive or Paranoid PD see themselves?

There have been various parsimonious attempts at a "higher order" classification of the personality disorders. Thus, the DSM system has the well-known Cluster A, B and C Clusters. Various attempts have been made to "map" these into other three-fold systems like Horney's Moving Away, Against, Toward Others; Eysenck's Neurotic, Psychotic and Extraversion; and the Intra-punitive, Extra-punitive and Impunitive system. However, there is not always agreement of the disorders. For instance, in the Hogan system Borderline and Avoidant are in Cluster A, and Schizotypy in Cluster B. Dark- side traits can be divided into three clusters.

Those in the first are distancing traits that push other people away. Traits in the second cluster are seductive qualities geared to pull people in. The third cluster contains ingratiating traits.

In this study we used a four-item measure of self-evaluation where participants rated their own IQ and Emotional Intelligence (on a normal distribution). There is a great number of studies in this area suggesting that these estimates are weak proxies for actual scores (with an r around 0.30) but that they are correlated with a number of other variables concerning psychological health [6]. They also rated their physical attractiveness and physical health, ratings which have been shown to be related to self-esteem. Based on earlier classification we predict those in Cluster A (Paranoid, Schizoid, Schizotypal) to be negatively while in Cluster B (Antisocial. Borderline, Histrionic and Narcissistic) will be positively associated with the PDs.

Method

Participants

In total, 502 participants from the United States completed the questionnaire, of which 53% were female (age range=19 to 76 years, *M*=31.6 years, *SD*=13.5). In all 27% had a high school level of education, 48% held an undergraduate degree, and 21% had some postgraduate qualification. Most were employed in a variety of skilled and professional jobs. They rated themselves well beyond average in terms of physical and mental health. The data was collected on-line using Amazon Mechanical Turk.

Measures

Coolidge Axis-II Inventory – Short Form (SCATI) [7]: This 70-item self-report measure assesses 14 personality disorders, 10 from *DSM-V*, 2 from Cluster B of the *DSM-IV-TR* (Depressive and Passive Aggressive) and 2 from *DSM-III-R* (Sadistic and Self-Defeating). The SCATI has good internal scale and test-retest reliability. It has been used to predict PDs in subclinical [8] and clinical populations. The reliability of this measure in this study is as followed: Antisocial (0.69), Avoidant (0.79), Borderline (0.72), Dependent (0.75), Depressive (0.81), Histrionic (0.68), Narcissistic (0.74), Obsessive-Compulsive (0.61), Paranoid (0.80), Passive-Aggressive (0.75), Sadistic (0.79), Self-defeating (0.68), Schizotypal (0.74), and Schizoid (0.73).

Self-Ratings: They self-evaluated themselves on 4 dimensions; Two were evaluated on a normal IQ distribution (Mean 100, SD=15): IQ (M=103,83, SD-14.19) EQ (M=105.58; SD=13.53) and two on a 100-point scale (1=Very low; 100=Very High): Attractiveness (M=52.33, SD=19.20) and Physical Health (M=58.39, SD=22.33).

Intelligence: This was a 10-item intelligence test with knowledge items such as "What score is obtained by hitting the bull's eye in darts?", "What is the unit of sound intensity?", "Who wrote 'Of Mice and Men'?". It also had five fluid intelligence questions based on spatial and mathematical intelligence. The results were normally distributed, with scores between 0 and 10 (Mean=4.14, SD=1.70). The alpha for the test was 0.82.

Demographic questions: Participants provided information regarding their age, gender and educational level.

Procedure

Ethical permission was sought and received from the relevant ethics committee (UCL: CEHP/514/2017). The entire questionnaire

was administered online. Participants were recruited via Amazon Mechanical Turk (MTurk), an online market for enlisting workers to participate in research. Data collected from MTurk has been found to have similar levels of reliability with traditional recruitment methodologies, and the sample's diversity was also found to be more superior to those of student samples. As far as we know none of the volunteers were diagnosed with any personality disorder. They were told they would be answering a number of questions about different issues and should be as honest as possible. We performed the usual data cleansing.

Results

In this study we did correlational and factor analyses as well as a multiple regression. First, the four self-ratings were intercorrelated, with an Alpha of .61. The IQ score was correlated with just rated intelligence (r=0.29) and the total self-evaluation score as well as all 14 PDs but none were significant., hence it was dropped from further analysis (Tables 1 and 2).

Table 1 shows the correlations between the 14 PDs and the total SE scale. Three of the correlations were significantly positive and eight negative the highest of which were Avoidant, Depression, Self-Defeating and Schizoid.

Table 1: Means, SDs and Correlations with Total Self-Evaluations.			
	Mean	Std. Deviation	TOTSE
SE-IQ	103.83	13.96	0.59***
SE-EQ	103.44.	13.14	0.58***
SE-ATT	52.34	19.20	0.76***
SE-HEA	58.40	22.36	0.77***
TOTSE	320.10	67.34	
Antisocial	8.02	2.54	-0.09
Avoidant	11.28	3.50	-0.33**
Borderline	9.57	3.28	-0.29**
Dependent	8.72	2.65	-0.28**
Depressive	11.80	3.68	-0.42**
Histrionic	9.33	2.61	0.19**
Narcissistic	9.68	2.77	0.18**
Obsessive Compulsive	10.71	2.76	0.05
Paranoid	10.54	3.32	-0.17*
Passive Aggressive	10.32	2.84	-0.16
Sadistic	6.53	1.99	-0.04
Self-Defeating	9.53	2.93	-0.33**
Schizotypal	8.51	2.83	-0.16**
Schizoid	9.39	2.90	-0.33**
***p<0.001; **P<0.01; *p<0.05			

Table 2 shows the second step of a step-wise regression with sex and age in the first step and the 14PDs the second step with the total SE being the criterion score. Along with sex, five of the fourteen PDs are significantly associated with self-evaluations: three positive (OCD, Histrionic and Narcissistic) and two negative (Depressive and Schizoid).

Table 2: Results of the Regression onto Total Self-Ratings.			
	Unstandardized B	Beta	t
Sex	-13.16	-0.43	-3.46**
Age	0.32	0.08	1.94
Antisocial	-0.14	-0.00	-1.10
Avoidant	-0.99	-0.07	-1.07
Borderline	-1.04	-0.07	-1.06
Dependent	-0.89	-0.05	-0.91
Depressive	-2.76	-0.02	-3.21**
Histrionic	1.34	0.19	3.39**
Narcissistic	3.35	0.20	3.54***
Obsessive-Compulsive	3.25	0.19	4.00**
Paranoid	0.31	0.02	0.35
Passive-Aggressive	0.06	0.00	0.06
Sadistic	-1.64	-0.07	-1.36
Self-Defeating	-0.21	-0.02	-0.20
Schizotypal	-1.04	-0.06	-1.21
Schizoid	-2.46	-0.16	-2.84***
F (17,453) =13.60; p<0.001 AdjR²= 30.1%			

As noted above there are various higher order classifications of the PDs. We chose to do a factor analysis to explore this issue. Table 3 shows the rotated factor analysis. This showed two factors which effectively were those in Cluster A and C loading on the first factor and Cluster B on the second factor.

Table 3: Factor Analysis of the PD Measure.		
Rotated Component Matrix[a]		
	Component	
	1	2
Depressive	**0.852**	0.137
Avoidant	**0.842**	0.066
Self-Defeating	**0.821**	0.287
Schizoid	**0.745**	0.037
Dependent	**0.727**	0.180
Borderline	**0.727**	0.391
Paranoid	**0.720**	0.327
Passive-Aggressive	**0.636**	0.498
Schizotypal	**0.521**	0.444
Obsessive-Compul.	**0.417**	0.341
Histrionic	0.049	**0.822**
Narcissistic	0.063	**0.816**
Sadistic	0.245	**0.683**
Antisocial	0.380	**0.650**
Eigenvalue	5.30	3.19
Variance	37.80%	22.79%
Correlation with SE	-0.47***	0.22**

Thereafter a similar analysis shown in table 2 namely a step-wise regression was performed but rather than have the 14PDs the two factor scores from the above analysis was used. Overall, the regression was significant (F (4.474)=38.30; AdjR²=24). Three factors were significant: Sex (Beta=-0.12, t=3.07, p<0.01; Factor 1 (Beta=-0.40, t=9.80, p<0.001) and Factor 2 (Beta =0.23, t=5.53, p<0.001). Thus, males low on Cluster A and C, but high on Cluster B had high self-evaluations.

Discussion

It seems surprising that despite at least two journals in English dedicated to the PDs so few studies have specifically looked at self-evaluations [9]. A review of the literature on PDs shows a paucity of papers examining self-esteem correlates except in the case of Borderline PDs which attracts more research than any of the other PDs combined [10]. Indeed, that literature is concerned with the unusual instability of self-evaluation compared to other PDs or indeed normal people [11]. There are studies however on the self-concept, self-schema's in a variety of disorders [12-16].

The correlation results yielded many expected results: namely that those with Depressive, Self-Defeating and Schizoid PD had strongly negative evaluations while those with Narcissistic and Histrionic PD had significantly positive evaluations. However, there were some interesting and unexpected findings. Neither Anti-social nor Schizotypal PD correlated significantly with the self-evaluation score. It may be expected that both would have been positive given the description of both disorders, though it is possible that over time other's reactions to their behaviours would reduce their sense of self-worth. Equally it could be that the self-evaluation measure did not pick up aspects of the self that would appeal to either of these PDs such as being creative in those with Schizotypal PD and being powerful and successful for those with anti-social behaviour.

The results of the regression were particularly interesting given which PDs became significant (i.e., Obsessive-Compulsive) and those which fell out of significance (i.e., Dependent) compared to the correlational results, no doubt because of shared variance. Perhaps the most interesting was the high positive correlation between Obsessive Compulsive PD and self-evaluation. It is difficult to explain this finding as people with OCD disorders are often made fun of despite the fact that they are highly valued in certain work settings. Another interesting finding was that Self-Defeating PD was not significant in the regression which may be because of the high correlations with other disorders like Depressive PD.

The factor analysis of the 14 scales revealed two clear factors that accounted for around 60% of the variance, this suggests that the PDs two clusters A and C labelled in DSM manuals as "Odd and Eccentric" and "Anxious and Fearful" tend to load on factor one and those labelled "Dramatic, Emotional and Erratic" on factor 2. However, the classification is not the same. The correlations and regressions show however a clear pattern with the first factor being associated with a negative and the first with a positive self-evaluation.

Like all others this study has limitations. Whilst we had a large enough sample, they were not people diagnosed with any PD that we were aware of, so we should be referring to sub-clinical PD. There is also the issue of our criterion variable and the comparatively low alpha though many have argued that a high alpha is a sign of redundancy. Certainly, it would be worth repeating the study with

a more established and multi-dimensional measure of self-esteem/worth. Similarly, while the PD measure, we used to have acceptable psychometric qualities it assesses PDs which have either been long dropped (Passive-Aggressive) or never in (Self-Defeating) any of the five DSM manuals [2]. Thus, it may be worth repeating the study using a longer and more up-to-date measure of the PDs.

Data Availability

This is obtainable from the first author upon request.

Ethics

This was sought and obtained (CEHP/514/2017).

Informed Consent

Participants gave consent for their anonymised data to be analysed and published

Conflict of Interest

There is no conflict of interest.

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