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A study of personality disorders among patients with somatization disorder

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Background
The fact that there is a high association between personality disorders (PDs) and somatization disorder (SD) is widely accepted, to the extent that many expert clinicians find themselves compelled to manage personality traits in patients with SD to obtain good treatment outcomes.

This study was conducted to identify the distribution of all *Diagnostic and Statistical Manual of Mental Disorders*, 4th ed., text revision (DSM-IV-TR) PDs among patients with SD who were referred from primary care settings.

Patients and methods
This case–control study was conducted from September 2014 to April 2015 and was approved by the Ethics Committee at Al Amal Psychiatric Hospital, in Almadina Almonawara, KSA. Demographic data including sex, age, marital status, and education level of the cases and controls were collected. SD was diagnosed according to the DSM-IV-TR, whereas PDs were measured using the Diagnostic Checklist for Personality Disorders.

Results
The ages of cases ranged from 32 to 50 years (mean: 39.21±6.45 years); 55.8% of the group was male and 67.3% was married; 924.2% of the participants were educated. There was no significant difference in sociodemographic characteristics. The incidence of PDs in SD patients was 63.3%, compared with 10% in controls [odds ratio (OR)=18.5294; 95% confidence interval (95% CI)=5.6686–60.5687]. The highest OR for PDs in patients with SD, compared with that in controls, was for paranoid personality (OR=18.2063; 95% CI=4.9595–66.8357), followed by obsessive personality (OR=16.5000; 95% CI=5.8373–46.6399), and histrionic personality (OR=9.0444; 95% CI=2.4677–33.1489).

Conclusion
PDs in Saudi SD patients is very high. The results were comparable to that found in British and American studies, supporting the theory of Lillienfield that SD should be grouped under Axis II disorders of the DSM system and not under Axis I. Paranoid, obsessive, and histrionic personalities were the most common PD subtypes in SD patients as regards ORs.

Keywords:
Diagnostic and Statistical Manual of Mental Disorders, 3rd ed, revision, somatization disorders, personality disorder schedule, personality disorders

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Introduction

Somatization disorder (SD) is a form of mental illness that is characterized by chronic, multiple, unexplained somatic complaints, and is sometimes referred to as a functional somatic complaint (Chakraborty *et al.*, 2010; Chakraborty *et al.*, 2012).

Somatic symptoms may be influenced by ethnic factors. For example, SD is very common among South Americans (Aragona *et al.*, 2008, 2012) as well as in Asian people, especially among those suffering from depression, regardless of their age (Suen and Tusaie, 2004). Ethnic factors also influence the type of symptoms reported by patients. For example, Asian patients more frequently complain of a 'heavy head' compared with Americans, Caucasians, and Africans (Aragona *et al.*, 2008).

Many studies have confirmed that personality disorders (PDs) and SD are strongly associated with each other, and both appear early in patients (Alnaes and Torgensen, 1988; Rost *et al.*, 1992; Stern *et al.*, 1993). This observation led several authors to consider SD as a form of PD and suggests that it should be included under the title of Axis II, not as Axis I in the

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Diagnostic and Statistical Manual of Mental Disorders (DSM) (Bass and Murphy, 1995).

Some authors documented that somatic symptoms may be related to neuroticism (Klimowicz, 2003) and alexithymia (Sifneos, 1996; De Gucht, 2003), which are personality traits.

Neuroticism is sometimes called 'emotional instability', 'inverse emotional stability', or 'negative affectivity'. It is the tendency to see distressing thoughts easily, such as anxiety, depressive disorder, frustration, or susceptibility.

Neuroticism has been considered one of the strongest predictors of somatization (Klimowicz, 2003).

According to these results, somatization could be considered a defense mechanism against internal conflict that the patients find difficult to express directly (Monsen and Havik, 2001; Sar *et al.*, 2004).

The aim of this study was to identify the distribution of all DSM-IV-TR personality disorders among patients with SD who were referred from primary care settings.

Patients and methods

This case–control study was conducted from September 2014 to April 2015 and was approved by the Ethics Committee at Al Amal Psychiatric Hospital, in Almadina Almonawara, KSA.

Participants

Fifty-two consecutive SD patients referred from primary care settings and an age, sex, and education-matched control group of 40 normal participants were selected.

All patients with psychotic illness, including bipolar affective disorder and with organic brain syndromes, were excluded from the study.

Instruments

Demographic data on sex, age, marital status, and education of the participants were obtained. The diagnosis of the cases was done through clinical interview with the patient and according to the criteria of DSM-IV-TR of SD.

PDs were measured using the Diagnostic Checklist of Personality Disorders, designed by Rashad (1997), with which patients were checked for the presence of PDs using a validated and reliable questionnaire designed to suit Saudi Arabian culture (Rashad, 1997).

Statistical analysis

In this study, descriptive statistics were examined across all variables. The χ^2-test was performed for comparing qualitative variables. Statistical significance was set at *P*-values less than 0.05.

Odds ratio (OR) was calculated. The SPSS 12 statistical package (SPSS Inc., Chicago, Illinois, USA) was used for statistical analysis.

Results

The age range of the cases was 32–50 years (mean: 39.21±6.45 years); 55.8% of them were male and 67.3% were married; 94.2% of the participants were educated. There were no significant differences between cases and controls in terms of sociodemographic data (Table 1).

The incidence of PDs in SD patients was 63.3%, compared with 10% in controls [OR=18.5294; 95% confidence interval (CI)=5.6686–60.5687].

Paranoid personality had the highest OR among PDs in patients, compared with controls (OR=18.2063; 95% CI=4.9595–66.8357), followed by obsessive personality (OR=16.5000; 95% CI=5.8373–46.6399) and histrionic personality (OR=9.0444; 95% CI=2.4677–33.1489) (Table 2).

Table 1 Demographic characteristics

	n (%)		χ^2	
	Cases (*n*=52)	Control (*n*=40)	χ^2	*P*
Age (mean±SD) *t*=1.27*	39.21±6.45	37.45		
Sex				
Female	23 (44.2)	22 (55)	0.005	0.964
Male	29 (55.8)	18 (45)		
Marital status				
Single	10 (19.2)	10 (25)		
Married	35 (67.3)	23 (57.5)	1.250	0.741
Divorced	2 (3.8)	3 (7.5)		
Widow	5 (9.6)	4 (10)		
Education				
Illiterate	3 (5.8)	2 (5)		
Primary school	2 (3.8)	3 (7.5)		
Preparatory school	6 (11.5)	8 (20)		
Secondary school	17 (32.7)	9 (22.5)	2.514	0.774
University	14 (26.9)	10 (25)		
Postgraduate	10 (19.2)	8 (20)		

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Table 2 Personality disorders among somatization disorder patients (*n*=52) and controls (*n*=40)

	n (%)		χ^2		Odd ratio	95% Confidence Interval	*P*
	Cases	Control	χ^2	*P*			
Paranoid personality							
Positive	31 (59.6)	3 (7.5)	26.356	0.000	18.2063	4.9595–66.8357	0.0001
Negative	21 (40.4)	32 (92.5)					
Schizotypal personality							
Positive	34 (65.4)	9 (22.5)	16.703	0.000	6.5062	2.5502–16.5988	0.0001
Negative	18 (34.6)	31 (77.5)					
Schizoid personality							
Positive	10 (19.2)	9 (22.5)	0.147	0.701	0.820	0.2978–2.2587	0.7012
Negative	42 (80.8)	31 (77.5)					
Antisocial personality							
Positive	3 (5.8)	0 (0)	2.385	0.122	5.7273	0.2874–114.1416	0.2530
Negative	49 (94.2)	40 (100)					
Borderline personality							
Positive	29 (55.8)	8 (20)	12.031	0.0005	5.0435	1.9534–3.0221	0.0008
Negative	23 (44.2)	32 (80)					
Histrionic personality							
Positive	22 (42.3)	3 (7.5)	13.84	0.000	9.0444	2.4677–33.1489	0.0001
Negative	30 (57.7)	37 (92.5)					
Narcissistic personality							
Positive	17 (32.7)	6 (15)	3.774	0.052	2.7524	0.9694–7.8148	0.0572
Negative	35 (67.3)	34 (85)					
Avoidant personality							
Positive	27 (51.9)	6 (15)	13.399	0.000	6.1200	2.1974–17.0452	0.0005
Negative	25 (48.1)	34 (85)					
Dependent personality							
Positive	20 (38.5)	5 (12.5)	7.700	0.000	4.3750	1.4695–13.0250	0.008
Negative	32 (61.5)	35 (87.5)					
Obsessive personality							
Positive	44 (84.6)	10 (25)	33.143	0.000	16.5000	5.8373–46.6399	0.0001
Negative	8 (15.4)	30 (75)					
No PDs							
Positive	17 (36.7)	36 (90)	30.404	0.000	18.5294	5.6686–60.5687	0.0001
Negative	35 (63.3)	4 (10)					
Two or more PDs	38	10	7.045	0.008	2.9231	1.3011–6.5670	0.009

PDs, personality disorders.

Discussion

Many studies documented that PDs and SDs are strongly associated with each other and appear early in the history of the patient (Alnaes and Torgensen, 1988; Rost *et al.*, 1992; Stern *et al.*, 1993).

The current study is a case–control one carried out on 52 consecutive SD patients who were referred from primary care settings.

The age range of the participants was between 32 and 50 years (mean: 39.21±6.45 years); 55.8% of them were male and 67.3% were married; 94.2% of them were educated.

There were no significant differences in socio-demographic data.

This study revealed that the prevalence of PDs among SD patients was 63.3%, which was similar to the finding in other studies on the same subject (Garcia-Campayo *et al.*, 2007).

The prevalence of PDs among SD patients was 62.9%. In the study by Rost *et al.* (1992), the prevalence was 61% and more than half of them (37.2%) had two or more PDs. In the study by Alnaes and Torgensen (1988), the prevalence was 64%, and in Stern *et al.* (1993) the prevalence was 72%.

As can be seen, the presence of PD among patients with SD was very high, with comparable results in all of the above-mentioned studies, supporting the theory of Bass and Murphy (1995) that SD should be grouped under Axis II rather than under Axis I.

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In our study the prevalence of PDs in the control group was 10%, which is lower than that in the study by Stern *et al.* (1993) (36%). This can be attributed to the differences in the selected controls. Our control group consisted of normal participants, whereas in other studies the controls consisted of attendants of psychiatric outpatient clinics.

From a methodological point of view, the OR for every PD, compared with that of the control population, is more important than simple frequency. This could be determined in this study because it was a case–control study.

Paranoid personality had the highest OR among PDs in SD patients, compared with controls (OR=18.2063; 95% CI=4.9595–66.8357), followed by obsessive personality (OR=16.5000; 95% CI=5.8373–46.6399) and histrionic personality (OR=9.0444; 95% CI=2.4677–33.1489) (Table 2). In the study by Rashad (1997), the highest OR was similar to ours, with paranoid personality showing an OR of 9.2, obsessive–compulsive showing an OR of 6.2, and histrionic personality showing an OR of 3.6. In the study by Stern and colleagues, the highest OR was for passive-dependent (OR=17), followed by sensitive–aggressive (OR=13.7) and histrionic (OR=7.5) personality. In contrast, one of the earliest studies (Kaminsky and Slavney, 1983) that examined traits other than the categories of PDs among patients with SD found that the most common trait in patients with SD was histrionism. The same study (Kaminsky and Slavney, 1983) also showed that obsessive traits were very common.

Another study on somatizing patients referred from primary care observed the same results (Noyes *et al.*, 2001). In our study, obsessive PD showed the second highest OR in SD patients compared with the control group.

Kaminsky and Slavney (1983) observed that the presence of histrionic and obsessive traits may be contributing factors to the diagnosis of SD over time and its resistance to treatment.

Finally, there is a theory called classical Lillienfield assumption (Lillienfield, 1992) that suggests that histrionic and antisocial PDs share the same hereditary diathesis as SD. However, in the above-mentioned study, this fact could not be exclusively confirmed for antisocial PD but was confirmed for histrionic PD.

Conclusion

The results on PDs in Saudi SD patients matched those found in British and American studies and support the theory of Lillienfield (1992) that SD should be included under DSM Axis II disorders and not under Axis I.

In our study, the most common PDs among SD patients with regard to ORs were paranoid, obsessive, and histrionic personality.

Further research is needed to augment these data in other cultures and in other categories of somatoform disorders rather than SD.

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Conflicts of interest

There are no conflicts of interest.

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