

Panic agoraphobic spectrum in psychiatrically healthy subjects: Impact on quality of life

Dear Editor:

Several studies have evaluated the quality of life (QOL) in patients with Panic Disorder (PD). For instance, the *Epidemiological Catchment Area Study* (ECA) assessed the quality of life (QoL) using the subjective evaluation of health, psychosocial functioning and financial status as parameters (Regier *et al.*, 1984). Among the general population, people with PD or panic attacks reported a low level of physical health in 35% of cases and a low degree of mental health in 38% of cases, similarly to people suffering from Major Depressive Disorder (29% and 39% respectively), but more frequently than the individuals not affected by any disorder (24% and 12% respectively). Furthermore, 27% of patients with PD were in need of some form of social or financial support in contrast to 16% of people suffering from depression and 12% of unaffected people. The *National Comorbidity Survey* (NCS) (Magee *et al.*, 1996) found serious interference in activities in 27% of agoraphobic patients. For instance, the agoraphobic subjects reported an average of 1.1 days of work lost in the previous month due to their psychopathology. Several Authors have studied the relationship between PD and a worse quality of life and/or a worse ability to function. In a review on the topic, Mendlowicz & Stein (2000) provided an integrated view of the issue of quality of life in patients with anxiety disorders and concluded that the existing studies almost uniformly show a marked impairment of quality-of-life and psychosocial functioning in individuals with anxiety disorders. However, as noted by the Authors above, “despite the growing number of studies undertaken during the past 15 years, the investigation of quality of life in individuals with anxiety disorders is still in its infancy.” Rucci *et al.* (1993) evaluated the prevalence of subthreshold psychiatric disorders in primary care and their association with the patients health perception, disability in daily activities and psychological distress. Subjects with subthreshold disorders reported levels of psychological distress, disability in daily activities and perceived health comparable to those of patients with full-fledged ICD-10 disorders. Despite the scientific

and clinical importance of the topic, relatively few studies have evaluated the prevalence and impact of subthreshold affective disorders in general (Schotte & Cooper, 1999) and panic symptoms in particular (for instance Bellini & Galverni, 2003) in non psychiatric populations. Moreover, the literature on the relationship between sub-threshold or residual PD and quality of life is scant. To this end, we decided to investigate the impact of panic-agoraphobic “spectrum” on the quality of life of subjects who did not meet the criteria for a full blown PD. We adopted the definition of “spectrum” developed by Cassano and colleagues (Cassano & Pini, 2000; Rucci & Maser, 2000), which refers to a dimensional view of psychopathology that includes a broad array of manifestations of the target disorder, including its most severe symptoms as well as a range of more subtle features related to the core condition, which may include temperamental traits, prodromal indicators, or residual symptoms. Although they are frequently associated with specific DSM-IV disorders, these conditions are also found in individuals who have never met full DSM-IV diagnostic criteria. Our hypothesis for this study was that the presence of subthreshold panic-agoraphobic symptomatology in otherwise healthy individuals would significantly impair the quality of life despite the absence of a full-blown PD diagnosis.

METHODS

The study was conducted according to the Helsinki Declaration (World Medical Association), approved by the Ethical Committee of the University of Siena, and all subjects provided their informed consent. The study was conducted between summer 2005 and spring 2006. Two hundred-eighty-six subjects were randomly recruited from the general population in the Italian municipal areas of Siena, Potenza, Rome, Grosseto, Orvieto, Pordenone and Scauri. A diagnostic assessment was conducted to exclude the presence of full blown DSM-IV Axis-I and Axis-II disorder, using the *Mini International Neuropsychiatric Interview* (MINI) (Sheehan *et al.*,

1994) and the *Structured Clinical Interview* for DSM-III-R personality disorders (SCID-II) (Spitzer et al., 1990), respectively. Twenty-six subjects were excluded from the study after the preliminary screening because of the presence of a current or lifetime DSM axis I or II diagnosis at the time of the structured diagnostic interviews, leaving us with a study sample of 260 subjects.

The *Panic-Agoraphobic Spectrum Self Report* (PAS-SR) questionnaire (Shear et al., 2001) was used as a measure of the Panic-Agoraphobic Spectrum. The PAS-SR measures the presence of typical, atypical and subclinical symptoms of panic disorder, as well as temperament characteristics and behavioural patterns belonging to the phenomenological area of panic disorder. The questionnaire comprises 114 items grouped in 8 domains: separation sensitivity, panic-like symptoms, stress sensitivity, substance and medication sensitivity, anxious expectation, agoraphobia, illness related phobias and hypochondriasis, reassurance orientation. The psychometric properties of the PAS-SR are described elsewhere (Shear et al., 2001). In receiver operating characteristic curve analyses, a cutoff score of 35 was determined to best distinguish between subjects with and without clinically significant lifetime panic spectrum features (Frank et al., 2000). For the purposes of this study, a score above 35 was therefore defined as “high panic spectrum” whereas a score below 35 was defined as low panic spectrum.

Quality of life was measured via the *Quality of Life Enjoyment and Satisfaction Questionnaire* (Q-LES-Q) (Endicott et al., 1993). The Q-LES-Q is a self-report instrument used to assess the degree of enjoyment and satisfaction experienced by subjects in eight areas, including: physical health/activities (13 items), feelings (14 items), work (12 items), household duties (10 items), school/course (10 items), leisure time activities (6 items), social relations (11 items), and general activities (14 items). The scores for each section are reported as percentage of the maximum score for each specific domain. The three areas of work, household duties, and school/course work are filled out by the respondent only if applicable. Items are rated on a five-point scale. Higher scores denote higher levels of satisfaction. There are two additional items which explore medication satisfaction, and life satisfaction and contentment over the last week. The Italian version of the Q-LES-Q has recently been validated by Rossi et al. (2005).

Twenty-six subjects were excluded because of the presence of a current or lifetime DSM axis I or II diagnosis. Data were analysed using SPSS (2002). T-test statistics was conducted to evaluate age differences between the subjects with high and low PAS-SR scores.

Statistical Analyses

T-test and Chi square test were conducted to evaluate differences in demographic variables between the subjects with high and low PAS-SR scores. Mann-Whitney test was used to evaluate the differences in Q-LES-Q between the subjects with high and low PAS-SR scores.

RESULTS

Two-hundred-sixty subjects met the study inclusion and exclusion criteria and were enrolled. There were 168 female and 92 male participants and the mean age of the study subjects was 31 ± 11 years (31 ± 12 for males and 30 ± 10 for females). Table I illustrates the participants demographic characteristics.

Table I – Demographic Characteristics of the study sample.

Age (years)	31±11
Gender	
Male	92 (35.4%)
Female	168 (64.6%)
Marital Status	
Single, not married	205 (78.8%)
Married or living as married	43 (16.5%)
Widow/widower	2 (0.8%)
Divorced/separated	4 (1.5%)
Did not answer	6 (2.3%)
Employment	
Employment	113 (43.5%)
Housewife	10 (3.8%)
Student	109 (42%)
Unemployed	20 (7.7%)
Retired	8 (3.1%)
Education	
Post Graduate	20 (7.7%)
Graduate	64 (24.6%)
Completed High school or some college	154 (59.2%)
Completed Secondary School	15 (5.8%)
Completed primary school	7 (2.7%)

Of the 260 study subjects, 63 reported a PAS-SR score above the threshold for “high PAS-SR score” (Threshold = 35).

Subjects with high PAS-SR scores reported a significantly worse quality of life in the physical health, feelings, social relationships and general activities domains of Q-LES-Q (Table II).

Significant differences were also found between the subjects with high and the subjects with low PAS-SR scores for gender, with women who were significantly

Table II – Differences in quality of life between subjects with high and low PAS-SR scores (Mann-Whitney test). Higher scores denote worse quality of life.

	QLSEQ domains							
	physical health/ activities	feelings	work	household duties	school/ course work	leisure time activitie	social relations	general activities
PAS score < 35	63.18	71.10	75.50	58.88	63.19	67.55	71.04	58.34
PAS score > 35	56.79	65.56	70.52	58.61	56.36	65.21	66.60	52.06
<i>p</i> (2-tailed)	0.009348	0.027419	0.060778	0.889181	0.153035	0.211673	0.019222	0.00629

($p < 0.005$) more represented in the high PAS-SR score. No other demographic differences were observed between the subjects with high and the subjects with low PAS-SR scores.

DISCUSSION

Categorical classification systems are not currently able to detect the subthreshold and atypical phenomena that can accompany the nuclear symptoms of anxiety disorders. This vast area of manifestations can be associated with high levels of distress and maladjustment even in the absence of a full-blown disorder. For instance, a recent study by Fava *et al.* (2001) demonstrated that patients with agoraphobia treated with exposure therapy frequently display residual symptoms, which are correlated with a lower sense of environmental mastery, personal growth, purpose in life and self-acceptance, as well as with a lower sense of physical wellbeing. Katerndahl & Realini (1997) assessed the impact on work impairment and QoL of “full” and “subsyndromal” PD (the latter being defined as “infrequent attacks”) and found that although individuals with “infrequent” panic attacks were less impaired than individuals with full PD, they still showed a lower quality of life than controls. Our results confirm that the presence of a subthreshold panic-agoraphobic symptomatology impairs quality of life. In fact, we observed that subjects who scored above 35 on the PAS-SR reported a worse quality of life in all of the QLES-Q domains. The difference in quality of life between high and low PAS-SR scorers achieved statistical significance for the physical health, feelings, social relationships and general activities domains, i.e. in some of the most important domains of the scale. Of interest, the general activities domain summarises enjoyment and satisfaction in all the other domains explored by QLES-Q.

These findings suggest that attention should be paid to subclinical conditions that are not severe enough to warrant a diagnosis of PD but that may nonetheless interfere with life enjoyment and satisfaction.

Among the limitations of our study, we would like to acknowledge that the sample has been recruited by word of mouth, with specific inclusion/exclusion criteria. Therefore the sample may not be representative of the entire Italian population and we may have selected a higher number of subjects with subthreshold PD, given that we explained that we were interested in measuring the relationship between quality of life and subthreshold disorders and that the subjects with subthreshold PD may have been particularly interested in the study. Also, we did not evaluate how other variables such as education, marital status or income, may act as mediators or moderators of the relationship between panic spectrum and quality of life. Moreover, although all subjects with a DSM axis I diagnosis were excluded from the study, we did not evaluate the extent to which sub-threshold symptoms of other psychiatric disorders (such as depression) contributed to a poorer quality of life. Finally, the MINI does not permit to evaluate the presence of lifetime diagnoses, with the exception of psychotic disorders, panic disorders, and major depressive episodes. Clearly, more research on this topic is warranted. Regardless of the limitations, we think that the finding that the presence of subthreshold PD is correlated with poorer quality of life is of interest.

It remains to be established what the biological correlates are of subclinical conditions like panic agoraphobic spectrum (Brambilla *et al.*, 2002; Volpe *et al.*, 2004) and whether an intervention such as Cognitive Behavioral Group Treatment (Leveni *et al.*, 1999) targeting the subthreshold panic agoraphobic symptoms is warranted and able to lead to an improvement in the quality of life.

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