

CASE HISTORIES AND SHORTER COMMUNICATIONS

Panic disorder: a test of the separation anxiety hypothesis

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Summary—The DSM-III narrative remarks suggest that childhood separation anxiety disorder and sudden object loss apparently predispose to the development of adult panic disorder, despite the paucity of empirical studies documenting such a relationship. In an attempt to test the validity of this separation anxiety hypothesis of panic disorder, 14 objective questions pertaining to childhood separation experiences were answered by 23 panic disorder patients and 28 small-animal phobics. Although the panic disorder patients scored higher on 2 of the 14 items, these differences appear to have little clinical meaning. Caution is indicated prior to continued uncritical acceptance of the separation anxiety hypothesis of panic disorder.

INTRODUCTION

The third edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III) contains a number of nosological refinements and etiological advances over its predecessor (APA, 1980). For example, the label 'anxiety neurosis' found in the DSM-II (APA, 1968) is currently subdivided into two separate diagnoses, 'generalized anxiety disorder' and 'panic disorder' (APA, 1980, pp. 230–233). Moreover, the DSM-III states that, with respect to panic disorder,

"Separation anxiety disorder in childhood and sudden object loss apparently predispose to the development of this disorder." (APA, 1980, p. 231)

The editors of the DSM-III have stated that

"The approach taken in DSM-III is atheoretical with regard to etiology or pathophysiological process except for those disorders for which this is well established and therefore included in the definition of the disorder." (APA, 1980, p. 7)

Since the diagnostic criteria for panic disorder did not exist until 1980, it is difficult to see how the separation anxiety hypothesis of panic disorder could have received adequate empirical support at the time of the publication of the manual to justify including this concept as a component of the diagnosis of the disorder. What appears to have occurred is that the individuals responsible for formulating the diagnostic criteria for the anxiety disorders extrapolated from the research relating childhood separation anxiety as a precursor of agoraphobia to the presumably related condition of panic disorder. Apart from the problem of extrapolating data from one diagnosis to a separate one, hypothesizing that childhood separation anxiety is a precursor to adult panic disorder may not be justified for at least two reasons.

In the first, the separation anxiety hypothesis of agoraphobia itself has not been adequately documented. Numerous published case histories and uncontrolled descriptive studies initially did suggest that childhood separation anxiety was a precursor to the development of agoraphobia in adults, but subsequent control-group studies comparing agoraphobic vs other psychiatric patients have failed to find the predicted selective history of childhood separation trauma with respect to the agoraphobic patients (Buglass, Clarke, Henderson, Kreitman and Presley, 1977; Parker, 1979; Togerson, 1979; Tennant, Hurray and Bebbington, 1982; Thyer, Nesse, Cameron and Curtis, 1985a). As we have previously stated,

"It would be clearly premature to discard the separation anxiety hypothesis of agoraphobia, but careful consideration should be given to including this hypothesis in subsequent [diagnostic] formulations, unless better evidence is found." (Thyer *et al.*, 1985a, p. 77)

Secondly, studies directly addressing the relationship between panic disorder and a history of childhood separation anxiety are rare. The authors have been able to locate only two. Raskin, Peeke, Dickman and Pinsker (1982) conducted psychiatric interviews with 17 panic disorder patients and 16 patients meeting the criteria for generalized anxiety disorder, with the aim of eliciting the presence of physical separation experiences (several months or longer, from one or both parents, prior to age 10) or separation anxiety disorder of childhood (retrospectively employing the current DSM-III criteria), among other developmental factors. Eight panic disorder patients and five generalized anxiety disorder patients reported such an early separation, while the criteria for childhood separation anxiety disorder appeared to have been met by six panic and four generalized anxiety disorder patients. Apart from considering the perils of retrospectively diagnosing childhood separation anxiety disorder in adult patients, these data did not find statistically significant differences in the incidence of either physical separations or childhood separation anxiety disorder between the panic disorder or generalized anxiety disorder patients.

Gittelman and Klein (1984) recently reviewed the evidence on the relationship between separation anxiety and panic and agoraphobic disorders. However, these authors cited literature which referred to agoraphobic and school phobic patients only, not panic disorder patients. We concur with Gittelman and Klein that

"From these data, it seems desirable to document the presence of separation anxiety among adult panic disorder patients." (1984, p. 64)

The present study was a preliminary attempt to address this issue.

Table 1. Separation anxiety questions and mean scores for panic disorder and simple phobic patients

Item ^a	Panic disorder (N = 23)		Patient group: Simple phobia (N = 28)		P ^b
	\bar{X}	SD	\bar{X}	SD	
1. Was your mother ill while she was pregnant with you?	1.61	1.32	1.61	0.91	0.99
2. Were there any medical problems for you or your mother at the time of your birth?	2.00	1.55	1.14	0.46	0.02
3. Did you have feeding problems as an infant?	1.30	1.10	1.47	1.46	0.68
4. How much time did you spend in a nursery school between ages 2 and 4?	1.21	0.70	1.42	0.91	0.38
5. How often did your parents leave you with babysitters when you were very very young?	2.42	1.24	2.25	0.98	0.59
6. How much were you upset by being left with babysitters?	2.33	1.49	2.08	1.43	0.58
7. How scared were you when you started school?	3.09	1.41	2.08	1.41	0.02
8. Did you ever stay home from school because of fears?	1.77	1.19	1.77	1.21	0.98
9. Did you have repeated headaches, stomach aches etc. that kept you home from school?	1.31	0.77	1.66	1.10	0.22
10. When you were young, were you ever afraid your parents would leave you?	2.20	1.57	1.96	1.48	0.60
11. How afraid were you when you stayed overnight at a friend's house when you were a child?	1.68	0.94	1.85	1.19	0.61
12. How much time did you spend at summer camp when you were a child?	1.31	0.71	1.71	0.93	0.10
13. When you were young, how much did you worry about your parents separating?	2.19	1.46	1.85	1.37	0.41
14. How upsetting was it for you to move away from home?	2.50	1.31	2.21	1.28	0.45

^aAnchoring scale (1 = not at all, 2 = a little bit, 3 = some, 4 = quite a bit, 5 = extremely).

^bDifferences between groups were examined by two-tailed *t*-tests. For items in which patients did not give a response, the degrees of freedom were adjusted for that individual test.

METHOD

Twenty-three panic disorder patients were compared with 28 simple phobics. Each patient was evaluated and treated at the Anxiety Disorders Program of the Department of Psychiatry at the University of Michigan Hospitals and had received their diagnosis from a clinician trained in the use of the DSM-III criteria.

Each patient completed a brief questionnaire consisting of 14 items about potential childhood and adolescent separation experiences, drawn from our review of the literature on the hypothesized developmental precursors of agoraphobia (no literature, apart from the DSM-III, existed concerning panic disorder). Patients answered each question using a 5-point rating scale ranging from 1 ('not at all') to 5 ('extremely'). Space was provided for the patient to indicate 'do not know', hence not all patients answered every question. This questionnaire is identical to the one employed in our previous study on separation histories in agoraphobic patients and is displayed in Table 1.

Each panic disorder and small-animal phobic patient seen between 1978 and 1982 and who had completed the separation questionnaire is included in the present study. We employed as a control group anxious patients who did not present with a history of spontaneous panic attacks, individuals requesting treatment for severe fears to small animals. Such a comparison group provides a more robust test of the hypothesis that a history of separation trauma is *selectively* associated with panic disorder than would a group of nonanxious normal individuals.

RESULTS

The mean age of the panic disorder patients was 34.6 yr (SD = 11.9) while the mean age for the simple phobics was 29.8 yr (SD = 8.87). This difference was significant at the 0.10 level (*t*-test), suggesting a statistical trend for the panic disorder patients to be somewhat older when evaluated than the simple phobics. The panic disorder group consisted of 15 females and 8 males, while the simple phobics comprised 26 females and 2 males. This gender distribution is significantly different ($\chi^2 = 6.11$; $P < 0.02$), suggesting that males were disproportionately represented among the panic disorder patients, compared to the simple phobics.

The mean score for each group on the individual items of the separation questionnaire is presented in Table 1. The panic disorder patients scored significantly higher ($P < 0.05$) than the simple phobics on two of the 14 items: "Were there any medical problems for you or your mother at the time of your birth" (Item 2) and "How scared were you when you started school" (Item 7). Note that despite the difference appearing on Item 2, the panic disorder group, as a whole, gave a rating of 2 ('a little bit'), while the simple phobics scored slightly more than 1 ('not at all'). On Item 7 the panic disorder group gave a mean score of approx. 3 ('some') while the simple phobic rating was approx. 2 ('a little bit'). These two differences, appearing on a 14-item questionnaire, appear to have little clinical meaning. In no case did either group come close to scoring a 4 or 5 on our anchoring scale, reflective of moderate to severe disturbance, suggesting that the potentially traumatic separation experiences assessed by our questionnaire were not consistently reported for patients in either diagnostic category.

DISCUSSION

At best our data lend only weak support to the hypothesis found in the DSM-III that separation anxiety disorder in childhood is a selective precursor to the development of adult panic disorder, as compared to simple phobics. This weak finding may be compared with our earlier study evaluating childhood separation experiences and reactions between patients diagnosed as having agoraphobia with panic attacks and those with simple phobias (Thyer *et al.*, 1985a) which failed to isolate separation trauma as a precursor to agoraphobia. The similar results of these two studies is not surprising. Agoraphobics with panic attacks and panic disorder patients have virtually identical mean ages of onset (approx. 27 yr)

and histograms depicting these ages of onset are similar normal curves (Thyer, Parrish, Curtis, Nesse and Cameron, 1985b). No dramatic differences occur between agoraphobic and panic disorder patients assessed with the Spielberger State-Trait Anxiety Inventory, the Derogatis Symptom Checklist or Wolpe-Lang Fear Survey Schedule (Thyer, Himle, Curtis, Cameron and Nesse, 1985c), both groups are amenable to similar pharmacological treatments (Rifkin, 1983; Zitrin, Klein, Woerner and Ross, 1983) and both are vulnerable to panic attacks provoked by lactate challenge testing (Rifkin, 1983; Kelly, Mitchell-Heggs and Sherman, 1971). There is a growing body of research suggesting that the panic attacks characteristic of panic disorder and agoraphobia with panic attacks may have a common biological etiology [summarized in Curtis, Thyer and Rainey (1985)] as opposed to psychological explanations such as the separation anxiety hypothesis.

Because this study was retrospective, it is possible that patients with panic disorder recalled less separation material than the simple phobics, thus accounting for the present findings. Only prospective studies can adequately assess this possibility, although it seems likely that any biases in reporting would be equally probable in the two diagnostic groups. Caution is indicated prior to continued uncritical acceptance of the separation anxiety hypothesis of panic disorder.

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