

CASE HISTORIES AND SHORTER COMMUNICATIONS

Agoraphobia: a test of the separation anxiety hypothesis

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(Received 11 April 1984)

Summary—It is commonly accepted that early traumatic separation experiences predispose to the development of agoraphobia in adults. This separation anxiety hypothesis has been incorporated into the diagnostic criteria of the DSM-III, despite the absence of substantial empirical support. In the present study, 14 objective questions pertaining to childhood separation anxiety experiences were answered by 44 agoraphobics and a comparison group of 83 simple phobics. In no instance did the agoraphobics report significantly greater separation trauma in childhood than the simple phobics. This suggests that better evidence is needed before acceptance of the separation anxiety hypothesis of agoraphobia. Psychological explanations regarding the etiology of the disorder may need to be discarded in favor of biological factors which are receiving increasing empirical support.

INTRODUCTION

Agoraphobia is one of the more disabling of the anxiety disorders, being characterized in its extreme form by individuals who are almost completely housebound (Marks, 1969). The onset of agoraphobia is usually related to the occurrence of apparently spontaneous panic attacks (Freud, 1962; Mendel and Klein, 1969). Attempts to prevent such attacks by avoiding the circumstances and situations associated with previous attacks are usually only partly successful. Severe anticipatory anxiety, centered around fears of when and where the next such panic attack may occur, typically results in increasing degrees of restriction and phobic avoidance.

Contemporary psychiatric and psychological literature often contains the hypothesis that agoraphobia is closely related to childhood separation anxiety phenomena. For example, the DSM-III criteria explicitly state that, "separation anxiety disorder in childhood and sudden object loss apparently predispose to the development of agoraphobia" (American Psychiatric Association, 1980, p. 226). This view is common to many psychodynamic theories of the disorder. Freud, notes Hoehn-Saric (1979), changed his early view that anxiety was caused by the simple repression of sexual urges to the theory that anxiety is a signal that induces defensive operations to ward off unacceptable wishes. Greenson (1959) characterized the agoraphobic person as one who, when separated from the object, suffers the loss of his internal object as well and hence loses ego functions, causing panic. Likewise, Rhead (1969) linked agoraphobia with the failure to achieve separation-individuation out of the original symbiotic tie with the mother. Phobic symptoms occur when this symbiotic tie is threatened. An entirely different separation anxiety hypothesis has been developed by Klein (1981) who views agoraphobia as a maladaptive outbreak of separation anxiety which, he feels, is an innate biological mechanism that controls attachment behavior. According to Klein, the panic and dependent behavior of the agoraphobic is analogous to the whining of puppies when separated from their mother and reflects an evolved, adaptive mechanism to restore protective attachment, most commonly observed in earlier stages of life. In agoraphobia, because of constitutional factors, endocrinological imbalance or actual object loss, the threshold for the release of this mechanism is low. Like Klein, Bowlby (1974) postulated that attachment behavior is an evolved derivative of a system where the mother protects the child from external danger. He applied this notion of anxious attachment to agoraphobia, speculating that such individuals have been sensitized into overattachment by actual separation or threats of abandonment by caretakers (Bowlby, 1974).

Several case reports (Wangh, 1967; Stamm, 1972; Frances and Dunn, 1975; Roth, 1959) and descriptive studies have supported the hypothesis that agoraphobics have a history of separation trauma or an increased sensitivity to separation experiences. For example, in a retrospective case record examination of agoraphobics by Mendel and Klein (1969), 50% of those patients with the onset of agoraphobia below age 21 (4 out of 8) had marked childhood separation anxiety, while this was true for only 24% of those with the onset of agoraphobia after 21 years of age (4 of 17). Other descriptive studies report that the majority of agoraphobics have a history of parental overprotection and/or lack of parental affection (Terhune, 1949; Tucker, 1956; Webster, 1953). Similar findings have also been recently reported for panic disorder (Raskin, Pecke, Dickman and Pinsker, 1982).

Descriptive studies of agoraphobic patients are not sufficient, however, to adequately test the hypothesis that a history of childhood separation anxiety is selectively associated with that disorder. For this purpose, control groups of other anxious, but not agoraphobic, individuals are necessary for comparison purposes. Such controlled studies have produced results less favorable to the separation anxiety hypothesis. For example, Buglass, Clarke, Henderson, Kreitman and Presley (1977) found that 30 agoraphobic patients could not be distinguished from a control group of 30 matched general practice patients on scales measuring positive, negative and ambivalent feelings towards parents. Parker (1979) retrospectively assessed parental bonding patterns in matched groups of agoraphobics ($N = 40$), social phobics ($N = 41$) and adult offenders ($N = 132$). Compared to adult offenders, social phobics scored both parents as low on caring and high on overprotection, while agoraphobics differed from offenders only in scoring lower on parental care. Social phobics appeared

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to have a greater history of attachment disturbance than agoraphobics, a result not predicted by the separation anxiety hypothesis of agoraphobia.

Tennant, Hurry and Bebbington (1982) found that childhood separations occurring prior to age 5 had no relationship to adult depressive or anxiety states, while such experiences occurring after age 5 were more often associated with depressive disorders than anxiety. Torgersen (1979), administered a phobia and fear questionnaire to 99 same-sexed pairs of twins and factor analyzed the results to empirically extract five categories of fear items which he labeled 'separation', 'animals', 'mutilation', 'social' and 'nature' fears. Monozygotic twin partners were more similar than dizygotic twins on all factors, except separation. Torgersen concluded that "genetic factors play a part in the development of phobic fears, with the exception of separation fear" (1983, p. 349). Further research is warranted to investigate the apparent discrepancy occurring between these findings and the widely accepted theory that childhood separation fears are related to subsequent agoraphobia. The present study was designed to explicitly test this hypothesis.

METHOD

Forty-four agoraphobics with panic attacks were compared with 83 simple phobics. Agoraphobics and simple phobics had mean ages at intake of 36 yr (SD = 10.39) and 34 yr (SD = 12.65), respectively. The two groups did not significantly differ in their gender distribution or mean age. Each patient had requested and received treatment at the Anxiety Disorders Program at the Department of Psychiatry at the University of Michigan Hospitals between 1978 and 1982. As a part of the initial assessment procedure, each patient completed a brief questionnaire consisting of 14 items about childhood and adolescent separation experiences. The questions, listed in Table 1, were drawn from our review of the literature on the reported developmental precursors of agoraphobia.

Patients answered each question using a 5-point scale ranging from 1 (Not at all) to 5 (Extremely). A space was available for the patient to indicate "Do not know."

RESULTS

The mean score for each group on each individual question is presented in Table 1, along with the results of the statistical analyses. The agoraphobic group was not significantly different ($P \leq 0.05$) from the comparison group of simple phobics on any item. Five items revealed marginally ($P \leq 0.10$) significant differences between the groups. Compared to simple phobics, agoraphobics had slightly more medical problems before and immediately after birth (Items 1 and 2), spent less time at nursery school and summer camp (Items 4 and 12) and reported less fear during overnight visits with friends (Item 11). On most other items, including some that might be expected to differentiate the groups (i.e. Were you upset by babysitters?), the groups were essentially identical. Overall, both groups tended to score in the low range of the anchoring scale, between 'Not at all' and 'A little bit', suggesting that separation trauma was not especially salient in either diagnostic category.

DISCUSSION

These results lend themselves to at least two interpretations. In the first, they suggest that separation anxiety disorder may not be a selective precursor to agoraphobia, as suggested by the DSM-III. In the second interpretation, the separation anxiety hypothesis needs to be extended to include simple phobics. This latter explanation weakens the scientific testability of the separation anxiety hypothesis by simply expanding it to fit the facts, and is also not supported by what is known about the etiology of simple phobia. In recent large group studies of simple phobics, over half of the patients sampled reported that the onset of their clinical fears followed a traumatic experience with the phobic object, animal or situation (Öst and Hugdahl, 1981; Wolpe, 1981). This supports a respondent conditioning explanation of that disorder, not one based upon separation fears. Simple phobics would appear to be an appropriate comparison group to evaluate the role of separation anxiety as a precursor to agoraphobia since we know of no previous suggestions in the psychiatric literature that separation fears are the basis for simple phobias. In addition, a comparison of normal individuals would not have

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

Item ^a	Patient group		<i>t</i> ^b	<i>P</i>
	Agoraphobic (<i>N</i> = 44) \bar{X}	Simple phobic (<i>N</i> = 83) \bar{X}		
1. Was your mother ill while she was pregnant with you?	1.79	1.39	1.78	0.07
2. Were there any medical problems for you or your mother at the time of your birth?	1.76	1.36	1.65	0.10
3. Did you have feeding problems as an infant?	2.41	2.16	0.56	0.57
4. How much time did you spend in nursery school between ages 2 and 4?	1.13	1.40	-1.71	0.08
5. How often did your parents leave you with babysitters when you were very very young?	2.02	2.09	-0.30	0.75
6. How much were you upset by being left with babysitters?	1.60	1.87	-0.95	0.34
7. How scared were you when you started school?	2.51	2.25	0.88	0.37
8. Did you ever stay home from school because of fears?	1.76	1.64	0.51	0.60
9. Did you have repeated headaches, stomach aches etc. that kept you home from school?	1.67	1.65	0.07	0.94
10. When you were young, were you afraid your parents would leave you?	2.00	1.94	0.19	0.84
11. How afraid were you when you stayed overnight at a friend's house when you were a child?	1.42	1.79	-1.72	0.08
12. How much time did you spend at summer camp when you were a child?	1.47	1.81	-1.84	0.06
13. When you were young how much did you worry about your parents separating?	1.70	1.89	-0.73	0.46
14. How upsetting was it for you to move away from home?	1.95	2.07	-0.49	0.62

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

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

provided as robust a test of the separation anxiety hypothesis as does the present control group of anxious, nonagoraphobic patients.

It may be that this study was susceptible to biased retrospection on the part of the patients, but we know of no *a priori* reason to assume that such biases would be selectively associated with either one of the two groups of patients. Given the absence of such evidence, as well as the lack of significant differences between the two diagnostic groups, the seriousness of possibly biased recollection is difficult to assess.

Recent evidence pertaining to the etiology of the panic attacks that induce most cases of agoraphobia supports biological explanations of that disorder. Panic attacks are known to respond to various medications, including imipramine, phenelzine and alprazolam (Zitrin, Klein, Woerner and Ross, 1983; Sheehan, Ballenger and Jacobsen, 1980; Chouinard, Annable, Fontaine and Solyom, 1982). Panic attacks commonly recur following discontinuation of these drugs. In agoraphobic or panic disorder patients, acute anxiety attacks symptomatically similar to apparently spontaneous panic episodes can be produced in the laboratory using infusions of sodium lactate or yohimbine (Rifkin, 1983; Liebowitz *et al.*, 1983; Charney, Heninger and Redmond, 1983). Such lactate attacks can be blocked by pretreatment with imipramine, desipramine (Rifkin, Klein, Dillon and Levitt, 1981) or phenelzine (Kelly, Mitchell-Heggs and Sherman, 1971), the same compounds found clinically useful in the treatment of panic. Panic attacks are known to be associated with the anomalies of mitral valve prolapse (Pariser, Pinta and Jones, 1978; Kantor, Zitrin and Zeldis, 1980; Venkatesh, Pauls, Crowe, Noyes, Van Valkenburg, Martins and Kerber, 1980), and studies of the familial prevalence of panic disorder and agoraphobia suggest a genetic vulnerability to those disorders (Harris, Noyes, Crowe and Chaudrey, 1983; Crowe, Noyes, Pauls and Slymen, 1983). This evidence supports a more biological view of the etiology of panic attacks and subsequent agoraphobia and possibly explains why this and other studies cannot document the presumed psychological precursors of agoraphobia. It would clearly be 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.

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