Articolo originale • Original article

Parental attitudes of mothers of patients with panic disorder

Attitudini genitoriali di madri di pazienti con disturbo di panico

Summary

Introduction

Maternal overprotection and lack of care during childhood has been repeatedly reported in anxious patients. On empirical grounds, the mother-child relationship has been retrospectively studied using specially devised questionnaires (Parental Bonding Instrument, EMBU, etc.), the results of which actually suggest the presence of maternal overprotection. A further piece of information may derive by the direct assessment of upbringing attitudes of the mothers. The Parental Attitude Research Instrument is specifically directed at exploring such an issue.

Method

The Parental Attitude Research Instrument was administered to 26 mothers of patients affected by panic disorder (18 with agoraphobia and 8 without agoraphobia), 25 panic disorder patients (8 without agoraphobia), who were mothers themselves, and to two age-matched control groups of healthy mothers.

Results

The mothers of panic disorder patients scored significantly higher on the two scales which explore overprotection and control (scale #2, "Fostering Dependency" and scale #20, "Intrusiveness") (Table I). No significant differences were found between the patients affected by panic disorder who were mothers themselves and the healthy controls on any of the 23 Parental Attitude Research Instrument scales (Table II).

Conclusion

The peculiar upbringing attitudes we have found in the mothers of subjects with panic disorder, and panic disorder with agoraphobia give further strength to the theory of a distorted rearing pattern as a common cause of such disorders. Of the 23 scales composing the instrument, in fact, only those specifically correlated with the problem of overcontrol show consistent differences between the mothers of panic disorder patients and the mothers of normal subjects. The results seem to further support the hypothesis of maternal overprotection as a predisposing factor for panic disorder (PD). In fact, early environmental factors seem to increase the probability of developing panic disorders. The etiological role of these factors, however, is still uncertain and must probably be considered in the background of complex relationships with others factors.

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Key words

Maternal overprotection • Panic disorder • Parental behaviour

Introduction

All psychological theories, irrespective of their orientation (dynamic, cognitive, behavioural) agree that childhood environment influences later psychic development. Bowlby's theory ^{1 2} states that the lack of a "secure base", due to dysfunctional parent-child bonding, may predispose the child to develop mental disorders in adult life, and particularly

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anxiety disorders. This may occur specifically because of either abnormal attachment patterns or separation/loss of parental figures.

Several authors have in fact reported distorted attachment patterns (child rising patterns) during the childhood/adolescence of anxious patients ³⁻⁶. In particular, maternal overprotection is reported to be a frequent antecedent of phobic disorders ⁷⁻¹⁰. Most studies that aimed confirming these observations on empirical grounds have shown results which are consistent with this hypothesis, especially in the case of panic disorder and panic disorder with agoraphobia ¹¹. Other studies, however, report that attachment style, in particular parental overprotectiveness, is unrelated to panic disorder and/or agoraphobia ¹²⁻¹⁵.

In addition, in most instances, the inquiry was retrospective and the instruments used – Parental Bonding Instrument (PBI) ¹⁶⁻¹⁹, Egna Minnen Beträffande Uppfostran (EMBU) ²⁰⁻²² – explored the subjective recall (evaluation) of the child-parent relationship, rather than the objective reconstruction of the past.

Other studies have investigated the objective aspects of childhood/adolescence environment, taking into account the actual events that occurred, usually referred to as early life events, i.e., death of parents, separation from parents, etc. 23-28. In these studies, an excess of early life events is generally reported among patients suffering from panic/agoraphobia. These studies, however, have the opposite problem; the simple enumeration of events, though objective and reliable, is in fact a rough method for assessing the finer aspects of the childhood environment. As previously stated, therefore, the retrospective evaluation of the childhood environment is crushed by the Scylla of the lack of reliability of subjective methods and the Charybdis of the lack of sensitivity of objective ones.

In principle, only prospective studies that follow the mother-child relationship development could definitely solve the problem. Such studies, however, are clearly impracticable because of their length and costs.

Having established the need for a retrospective approach, the issue could be tackled by combining and integrating different methods.

Our group has already studied the subjective reconstruction of the parent-child relationship by the PBI ²⁹ and the actual assessment of early life events ^{30 31} but, as already mentioned, they are both subjected to criticisms. We have therefore decided to add a further piece of information to previous results, by studying directly the rearing attitudes of the mothers of subjects affected by panic disorder (PD).

We are well aware that this method has also consistent limitations, as they are the mothers' opinions of child rearing rather than their actual upbringing behaviours that are explored.

However, we believe that our approach is the most suitable to analyse the problem of early experiences within the limitations of retrospective inquiry. A combination and integration of results is in fact more likely to lead to the best approximation of the object under study. If it is true that the aspects related to negative early experiences play a role as predisposing factors for panic/agoraphobia, one should expect that such patients, compared to normal controls: 1) had undergone an excess of loss/separation events during childhood and/or adolescence; 2) evaluate their relationships with parents as more negative, i.e. with less care and more control; 3) the parental attitudes reported by their mothers reflect a peculiar style, characterised by high control and rigidity.

Having completed the first two steps, which produced results fully in accordance with the hypothesis ²⁹⁻³¹, the present paper refers to the administration of the Parental Attitude Research Instrument (PARI) ³² to the mothers of patients with PD. In particular, since the PARI consists of 115 items that produces 23 scales, the hypothesis is that only those scales that specifically explore control and rigidity should be altered. In order to verify whether anxious pathology can influence parental attitudes, a group of PD patients who are mothers themselves was also investigated.

Method

Procedure

The PARI was developed by Schaefer and Bell ³² for the assessment of parental opinions about child-rearing practices. It consists of 115 items encompassing 23 scales, each related to a parenting attitude. Of these, 3 seem to be directed at exploring specifically the issue of overprotection and control, i.e., scale #2 ("Fostering Dependency"), scale #19 ("Ascendance of the mother"), and scale #20 ("Intrusiveness").

Subjects

The PARI was administered to:

- 26 mothers of patients affected by panic disorder (18 with agoraphobia and 8 without agoraphobia) (mean age = 56.46 ± SD 5.68, education = 6.69 yrs ± SD 3.39);
- 25 consecutive female outpatients suffering from panic disorder (23 with agoraphobia and 2 withoutagoraphobia)(meanage = 42.17 ± SD 12.01, education = 9.00 ± SD 3.92) who were mothers themselves:
- two groups of healthy mothers used as controls.
 These two groups were randomly drawn from a
 broader sample recruited from the general population and were selected in order to match 1:1
 for age and education to the two groups of mothers according to a computer generated program.

Statistical analyses

T-test on the PARI scales for groups of mothers of panic patients and mothers of healthy subjects and for groups of panic patients who are mothers themselves and healthy subjects was performed.

Results

1. Healthy mothers of PD patients vs. controls

Two out of the three scales that were supposed to be specific to the issue of maternal overcontrol reveal significant differences between the mothers of patients and the control mothers. The mothers of patients scored in fact higher in "Fostering Dependency" and "Intrusiveness" (Table I).

No other difference was found in any of the remaining 21 scales. The mothers of patients with panic disorder and agoraphobia and the mothers of patients with panic disorder without agoraphobia did not show significant differences on any of the 23 PARI scales.

2. Patients vs. controls

No significant differences were found on the 23 PARI scales when patients affected by panic disorder and healthy controls were compared (Table II).

Discussion and Conclusion

It could be argued that the alpha value needs to be lowered to account for the number of comparisons being performed. However, of the 26 variables explored by the PARI, only three assess overproctection topics that are supposed to be related with the genesis of PD. Since the PARI is validated to be administered in its complete form, we could not extrapolate only the items relevant to our hypothesis. If the expectation, as stated before, is that only three scales distinguish between PD mothers and controls, then a multiple comparisons correction (Bonferroni test) is not necessary.

Looking at the data, two of the three scales that are directly related with the issue of overprotection and control showed significant differences between patients' mothers and healthy controls.

The third scale that was supposed to be indicative of overprotection (scale #19 "Ascendance of mother") failed to show differences between cases and controls. However, at a closer look, this scale reveals that it is not specifically directed at exploring the mother-child relationship, but rather at assessing the general role of the mother in the context of the entire family.

The results agree with the only study (to our knowledge) that investigated the parental attitudes of mothers of anxious subjects using the PARI ³³, even if in that study the subjects were defined generically "anxious" without using operational criteria.

Some considerations should be mentioned in connection with the present study.

First, the sample size does not allow enough power for statistical analysis; however, increasing the sample of PD mothers is difficult in practice.

Second, the stability of PARI is not established. The parental attitudes are evaluated 20-30 years after the upbringing period. It is possible that in this period the experience of having had an anxious child had changed the mother's opinions about the rearing styles.

Third, the role of the father must also be taken into consideration along with other parental and peer figures belonging to the overall family group, when analyzing the relationship between parental attitudes and disturbances in child development. Father and peers in fact can augment or neutralize the effects of the mothers' attitudes ³⁴.

Finally, the degree to which PARI explores actual upbringing behaviours or merely opinions on child rearing, is a vexed question. The retrospective design of our study cannot permit us to answer definitively this criticism.

Notwithstanding these limitations, we believe that

TABLE I.Mean, SD and t-test on the PARI Scale for Groups of mothers of panic patients and mothers of healthy subjects. *Media, deviazione standard e test t della scala PARI per il gruppo di madri di pazienti con panico e per il gruppo di madri di soggetti sani.*

	Mothers of panic patients (n = 26)		Healthy controls (n = 26)			
	Mean	SD	Mean	SD	t	р
Encouraging verbalization	17.8	1.87	17.50	1.90	0.66	0.51
Fostering dependency	13.65	4.05	11.11	3.54	2.41	0.02
Seclusion of the mother	12.88	4.42	12.15	3.72	0.65	0.52
Breaking the will	13.85	3.69	13.69	3.07	0.16	0.87
Martyrdom	14.50	4.37	14.35	3.76	0.14	0.89
Fear of harming the baby	13.12	4.53	12.92	3.77	0.17	0.87
Marital conflict	16.81	2.65	17.88	2.01	1.65	0.11
Strictness	10.07	3.69	11.00	3.24	0.69	0.34
Irritability	12.19	3.02	12.65	3.48	0.51	0.61
Excluding outside influences	12.88	4.79	13.07	4.33	0.15	0.88
Deification	13.54	3.74	13.12	4.18	0.38	0.70
Suppression of aggression	15.42	3.38	14.35	3.83	1.08	0.29
Homemaking role's rejection	11.50	4.85	13.64	4.22	1.56	0.13
Equalitarianism	17.15	4.01	18.54	1.96	1.58	0.12
Approval of activity	14.42	4.24	15.04	3.50	0.57	0.57
Avoidance of communication	11.42	3.93	10.27	3.14	1.17	0.25
Husband's inconsiderateness	14.85	4.05	14.58	3.38	0.26	0.79
Suppression of sexuality	9.81	3.99	10.23	3.70	0.40	0.69
Ascendance of the mother	16.23	4.05	15.65	3.21	0.57	0.57
Intrusiveness	16.35	3.31	13.88	4.13	2.37	0.02
Comradeship and sharing	18.50	2.44	19.00	1.58	0.88	0.39
Acceleration of development	13.00	4.26	13.38	2.98	0.38	0.71
Dependency of the mother	14.85	3.56	14.27	3.26	0.61	0.55

the peculiar upbringing attitudes we have found in the mothers of subjects with PD, are in accordance with the theory of a distorted rearing pattern as a common cause of such disorders. Of the 23 scales making-up the instrument, in fact, only those specifically correlated with the problem of overcontrol show differences between the mothers of PD patients and the mothers of healthy subjects. Combined with other information derived from researches that studied the topic from different points of view, our results seem to further support the hypothesis of maternal overprotection as a pre-disposing factor for PD.

Apparently, parental rearing practices do not seem to be influenced by the presence of an anxious disorder. Results of mothers with panic disorder on the PARI were not significantly different when compared with their age-matched healthy controls. This could mean that maternal overprotection is not a simple derivative of pathological anxiety *per se* and that cultural factors probably play some role. The results of this study are basically weak and do not lend themselves to a straightforward interpretation; the weak significance of the differences, the elevated number of non-significant comparisons, the use of the PARI as an instrument to assess opin-

TABLE II.

Mean, SD and t-test on the PARI Scale for Groups of panic patients who are mothers and healthy subjects. *Media, deviazione standard e test t della scala PARI per il gruppo di pazienti con disturbo di panico che sono anch'esse madri e per il gruppo di soggetti sani.*

	Panic patients (n = 25)		Healthy controls (n = 25)			
	Mean	SD	Mean	SD	t	р
Encouraging verbalization	17.28	1.90	17.52	1.89	0.45	0.66
Fostering dependency	12.08	3.69	11.12	2.80	1.03	0.31
Seclusion of the mother	12.32	3.81	11.32	3.61	0.95	0.35
Breaking the will	12.92	3.28	13.36	3.25	0.48	0.64
Martyrdom	13.72	3.72	13.64	4.20	0.07	0.94
Fear of harming the baby	12.64	3.63	11.84	3.71	0.77	0.44
Marital conflict	16.92	2.58	17.00	2.43	0.11	0.91
Strictness	9.64	2.96	10.68	2.41	1.36	0.18
Irritability	11.84	4.03	12.40	3.86	0.50	0.62
Excluding outside influences	13.08	4.28	13.48	3.68	0.35	0.73
Deification	12.84	4.17	13.28	4.05	0.38	0.71
Suppression of aggression	14.24	2.96	14.48	3.61	0.26	0.79
Homemaking role's rejection	11.84	4.13	12.80	3.25	0.91	0.37
Equalitarianism	17.92	1.94	18.40	2.06	0.85	0.40
Approval of activity	12.72	4.73	13.00	3.92	0.23	0.82
Avoidance of communication	10.32	2.89	9.84	3.44	0.53	0.59
Husband's inconsiderateness	13.84	3.41	13.44	3.72	0.40	0.69
Suppression of sexuality	9.16	3.75	9.16	3.06	0.00	1.00
Ascendance of the mother	13.96	3.76	14.16	4.08	0.18	0.86
Intrusiveness	13.64	3.68	14.84	3.51	1.18	0.24
Comradeship and sharing	17.92	2.24	18.36	1.93	0.74	0.46
Acceleration of development	9.16	5.49	10.92	4.18	1.27	0.21
Dependency of the mother	13.44	5.53	14.04	3.32	0.46	0.65

ions rather than actual behaviours, all render the findings difficult to interpret.

This notwithstanding, we believe that our study does not contradict the hypothesis that the childhood rearing experiences might have a role in predisposing the subject to panic disorder. The PARI results must in fact be regarded as further information in a broader frame where the occurrence of perceived parental bonding and the objective excess of early loss have already been signalled. In the hypothetical construct of overprotection, control and parental loss, the finding of higher levels of "Fostering Dependency" and "Intrusiveness" in

the mothers constitutes a further coherent piece of information.

References

- ¹ Bowlby J. *Attachment and loss*. 2nd vol.: Separation: anxiety and anger. London: Hogarth Press 1973.
- ² Bowlby J. *The making and breaking of affectional bonds*. Br J Psychiatry 1977;130:201-10.
- ³ Errera P. Some historical aspects of the concept, phobia. Psychiatr Q 1962;36:325-36.
- Slater E, Roth M. Clinical psychiatry. London: Bailliere, Tindall and Cassell 1969.

- Marks IM. Fears and phobias. London: Heinemann 1969.
- Shear MK. Factors in the etiology and pathogenesis of panic disorder: revisiting the attachment-separation paradigm. Am J Psychiatry 1996;153:125-36.
- ⁷ Terhune WB. *The phobic syndrome*. Arch Neurol Psychiatr 1949;62:162-72.
- ⁸ Webster AS. *The development of phobias in married women*. Psychological Monographs 1953;67:367.
- ⁹ Tucker WI. *Diagnosis and treatment of the phobic reaction*. Am J Psychiatry 1956;112:825-30.
- Lieb R, Wittchein HU, Hofler M, et al. Parental psychopathology, parenting styles and the risk of social phobia in offspring: a prospective-longitudinal community study. Arch Gen Psychiatry 2000;57:859-66.
- Turgeon L, O'Connor KP, Marchand A, et al. Recollections of parent–child relationships in patients with obsessive-compulsive disorder and panic disorder with agoraphobia. Acta Psychiatr Scand 2002;105:310-6.
- Bifulco A, Kwon J, Jacobs C, et al. Adult attachment style as mediator between childhood neglect/abuse and adult depression and anxiety. Soc Psychiatry Psychiatr Epidemiol 2006;41:796-805.
- Manicavasagar V, Silove D, Wagner R, et al. Parental representation associated with adult separation anxiety and panic disorder-agoraphobia. Aust N Z J Psychiatry 1999;33:422-8.
- Manicavasagar V, Silove D, Marnane C, et al. Adult attachment styles in panic disorder with and without comorbid adult separation anxiety disorder. Aust N Z J Psychiatry 2009;43:167-72.
- Pacchierotti C, Bossini L, Castrogiovanni A, et al. Attachment and panic disorder. Psychopathology 2002;35:347-54.
- Parker G. Reported parental characteristic of agoraphobics and social phobics. Br J Psychiatry 1979;135:555-60.
- ¹⁷ Parker G. Parental representations of patients with anxiety neurosis. Acta Psychiatr Scand 1981;63:33-6.
- Silove D, Parker G, Hadzi-Pavlovic D, et al Parental representations of patients with panic disorder and generalized anxiety disorder. Br J Psychiatry 1991;159:835-41.
- Wiborg IM, Dahl AA. The recollection of parental rearing styles in patients with panic disorder. Acta Psychiatr Scand 1997;96:58-63.
- Arrindell WA, Emmelkamp PM, Monsma A, et al. The role of perceived parental rearing practices in the aetiology of phobic disorders: a controlled study. Br J Psychiatry 1983;143:183-7.

- Arrindell WA, Kwee MGT, Methorst GJ, et al. Perceived parental rearing styles of agoraphobic and socially phobic in-patients. Br J Psychiatry 1989;155:526-35.
- Someya T, Kitamura H, Uehara T, et al. Panic disorder and perceived parental rearing behavior investigated by the Japanese version of the EMBU scale. Depress Anxiety 2000;11:158-62.
- ²³ Raskin M, Peeke HVS, Dickman W, et al. *Panic* and generalized anxiety disorders: developmental antecedents and precipitants. Arch Gen Psychiatry 1982;39:687-9.
- ²⁴ Finlay-Jones R. *Anxiety*. In: Brown G, Harris T, editors. *Life events and illness*. New York: Guilford Press 1986, pp. 95-112.
- ²⁵ Coryell W, Noyes R, Clancy J. Panic disorder and primary unipolar depression: a comparison of background and outcome. J Affect Disord 1983;5:311-7.
- Tweed JL, Schoenbach VJ, George LK, et al. The effects of childhood parental death and divorce on six-month history of anxiety disorders. Br J Psychiatry 1989:154:823-8.
- Kendler KS, Neale MC, Kessler RC, et al. Childhood parental loss and adult psychopathology in women: a twin study perspective. Arch Gen Psychiatry 1992;49:109-16.
- ²⁸ Bandelow B, Späth C, Tichauer GA, et al. *Early traumatic life events, parental attitudes, family history, and birth risk factors in patients with panic disorder*. Compr Psychiatr 2002;43:269-78.
- ²⁹ Faravelli C, Panichi C, Pallanti S, et al. *Perception of early parenting in panic and agoraphobia*. Acta Psychiatr Scand 1991;84:6-8.
- Faravelli C, Webb T, Ambonetti A, et al. Prevalence of traumatic early life events in 31 agoraphobic patients with panic attacks. Am J Psychiatr 1985;142:1493-4.
- Faravelli C, Pallanti S, Frassine R, et al. *Panic attacks with and without agoraphobia: a comparison*. Psychopathology 1988;21:51-6.
- ³² Schaefer ES, Bell RQ. Development of a parental attitude research instrument. Child Dev 1958;29:339-61.
- ³³ Groppelli A. *Gli atteggiamenti della madre, del padre* e di giovani sulla crescita del bambino. Contributo di ricerca con il PARI. Bollettino di Psicologia Applicata 1967;83-84:151-6.
- Quinton D, Rutter M, Liddle C. Institutional rearing, parenting difficulties and marital support. Psychol Med 1984;14:107-24.