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A Simple and Effective Treatment for Flight Phobia

By H. L. SHAW

Summary. Seventeen patients were treated by group desensitization and autohypnotic training over a period of six weeks for flight phobia, with a highly significant reduction of fear for the group. Expectation of benefit correlated positively with fear reduction.

Introduction

Flying has become a convenient and comfortable means of transport, and the introduction of package holidays has made it accessible to large numbers of people. It is of concern that an epidemiological survey (Agras, 1969) has shown that flight phobia can be mild in 20 per cent and severe in 10 per cent of a population.

Research has centred mainly on military pilots and aircrew. Goorney (1970) found that only 26 per cent of aircrew treated by all other available methods returned to full flying duties. He achieved the same results for about 66 per cent after ten months treatment using individual desensitization.

In the civilian passenger population Solyum *et al* (1973), in a comparative prospective study, found that aversion therapy, systematic desensitization, habituation and group psychotherapy were all eventually equally effective in reducing the phobia.

This study is an attempt to modify Wolpe's (1958) technique of systematic desensitization in imagination during relaxation for use in group therapy. Autohypnotic training was also given.

Patients and Methods

Seventeen subjects (seven male, ten female) aged between 15 and 67 years (mean 37 years) were recruited from other general practices in the area. During recruitment, they were told that treatment would not involve any drugs but was a simple form of behaviour therapy. Exclusions were: a history of psychosis, current psychiatric therapy, absence of flying experience, previous therapy for a flying phobia, or if the presenting complaint was other than that of fear or anxiety related to flying. At their initial group interview, the Maudsley Personality Inventory and a questionnaire relating to their medical, psychiatric and specifically their phobic history and current status were completed. The intensity of each subject's fear was measured on four occasions (pre-therapy, mid-therapy, post-therapy, post-flight) by systematic self-assessment, using a personal questionnaire (Mulhall, 1976). The fear of flying was analysed into 18 statements, ranging from the morning of the flight through to leaving the aircraft. These were placed into an unsystematic order designed differently on each occasion and such that no two statements were ever contiguous throughout the study.

Treatment comprised six sessions of approximately 30 minutes duration at weekly intervals, followed by an unaccompanied return flight on the Air Shuttle from London to Glasgow, a journey which lasts about 75 minutes in each direction. The first session involved the production of mental and physical relaxation by the technique of eye fixation and progressive muscular relaxation. In this relaxed condition, ego-strengthening statements were given. In subsequent sessions, after production of relaxation, the flight sequence was described in chronological order with frequent interruptions to deepen the relaxation. Autohypnosis was taught on the third occasion, with instruction to practise it thrice daily. Shortage of space necessitated the division of the total group into

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two approximately equal-sized groups. These were treated by the same method, and total interchange of subjects within the groups was deliberately maintained throughout the six sessions. All subjects who flew did so within ten days of their last session. The post-flight phobia questionnaire was completed in each case within 12 hours after the flight.

Results

Of the total 17 patients, 9 had not flown for two years or less, four had not flown for four to eight years, and 4 had not flown for 20 years or more.

Since their previous flight, the fear of flying had increased in 9 of the patients; had stayed the same in 7 patients, and in one patient (Case 9) the fear had lessened. However, there was no correlation between this and the length of time since they had flown.

The results of the Maudsley Personality Inventory show no definite pattern, and this group of patients does not appear to fit into any particular category. The conclusion that may be drawn is that flight phobia is a common condition and not necessarily associated with personality disturbance in any particular degree. Nevertheless, the relatively high number of extraverts may reflect the method of selection of the patients.

One patient (No. 2) neither flew nor returned to complete the first flight phobia questionnaire, and was therefore excluded from the analysis. Unknown to the author, he had received previous therapy for this problem.

One patient did not fly, but did fill out the necessary forms. It was later discovered that he was receiving psychotherapy. One patient missed the mid-therapy questionnaire, but returned for the flight and did the pre-flight and post-flight questionnaire. One patient (No. 14) suffered from a neurosis which in the opinion of the physician required psychotherapy.

There was a 42 per cent improvement in the group's fear ratings from the initial to the pre-flight levels. This increased to 64 per cent after the flight (Table I and Fig 1), an improvement, which is statistically significant ($P < 0{\cdot}001$).

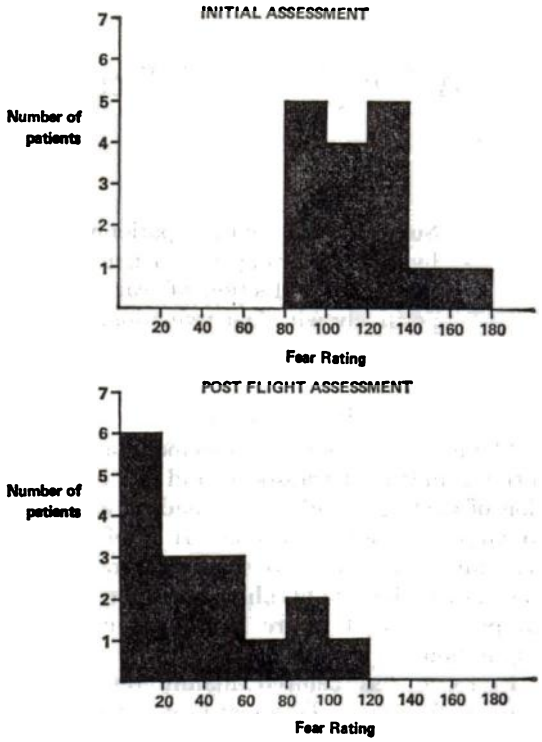


Fig 1.

Patients had been asked to record their expectation of success before the treatment started. This expectation was on a nine-point scale, and the result correlated with the actual improvement in their flight phobia ($R = 0{\cdot}79$). This would indicate that the higher the expectation the better the result. The improvement appeared to be universal and could not be correlated to either age, sex, the years since the last flight or their personality.

Discussion

Phobias are common and difficult to treat. Here a specific situational phobia has been treated effectively in a short time by a simple technique. It is difficult to be certain of the exact therapeutic principle or principles involved without the benefit of control groups. The use of control groups in this particular study was excluded after consideration of airline safety factors and the discomfort of other passengers if a phobic reaction had occurred in mid-flight.

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TABLE I

Flight phobia study

Case no.	Age	Sex	Years since flown	Fear has changed S = same I = increased L = lessened	Maudsley PE N	Maudsley PE E	Maudsley PE ?	Initial	Fear mid-therapy	Pre-flight	Post-flight
1.	33	F	4	I	36	26	0	112	63	45	48
2.	42	M	20	S	22	32	0	136	108	117	
3.	49	F	20	S	36	16	1	161	102	58	24
4.	46	M	29	S	6	34	4	87	83	71	30·5
5.	67	F	1	S	24	22	2	122	59	37	11
6.	46	F	29	I	10	26	8	148	149	104	12
7.	15	M	4	S	20	20	7	126	33	40	4
8.	31	F	1	S	22	28	8	105	100	110	54
9.	38	F	2	L	6	36	10	94	—	0	0
10.	55	F	1	I	32	22	4	126	126	125	0
11.	33	F	8	I	38	16	3	136	137	138	90
12.	34	M	2	S	18	38	1	132	99	71	24
13.	26	F	1	I	32	36	2	83	57	72	6
14.	34	M	1	I	34	8	10	97	96	86	107
15.	33	M	4	I	20	26	2	111	94	67	92
16.	31	F	1	I	36	36	0	91	83	64	41
17.	19	M	1	I	26	26	1	103	58	38	73

Case No. 2 neither flew nor returned to complete the post-flight phobia questionnaire.
Case No. 15 did not fly, but returned to fill out the forms.
Case No. 14 was suffering from an existential neurosis which really requires psychotherapy.
Case No. 9 missed the mid-therapy questionnaire but did well.

It may be that autohypnotic training by itself would have been effective. It is questionable whether autohypnosis or group desensitization alone would have produced the same results in as short a time.

It is interesting that the subjects were able to predict fairly accurately their actual improvement (R = 0·79). There was also a strong positive correlation (R = 0·87) between the subjective assessment of reduction of fear after treatment and the actual reduction obtained. This suggests that an assessment of the patient's expectation from his therapy might be expedient before treatment for a phobia is instituted. Solyum found that improvement was maintained over a year. This group's prediction is that the improvement will be maintained, and on the basis of the previous high correlations between predictions and benefit this is encouraging.

This study employed Wolpe's technique of systematic desensitization under relaxation, but used a chronological as opposed to a hierarchical sequence. Marks (1969) has already questioned the necessity for relaxation during desensitization, and it may be that the construction of a hierarchy is also not essential. This study differs from that of Solyum in taking place in a general practice setting without the aid of either simulated passenger seats or film sequences.

The only unusual feature was a free return airfare. Precautions were taken to minimize the therapeutic effects of the flight itself. These were that the subject flew unaccompanied and was treated by the aircrew as a normal passenger. This particular journey is viewed as an 'airbus', and involves no attention from the cabin staff.

The simple short therapy described here could be employed in any clinical setting. It may be possible to extend its use to other situational phobias with good effect.

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