

STANDARDIZATION OF THE FEAR SURVEY SCHEDULE BASED UPON PATIENTS WITH DSM-III ANXIETY DISORDERS

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Summary—The Wolpe-Lang Fear Survey Schedule was administered to 141 psychiatric outpatients who met the criteria for a primary Axis I diagnosis of one of the DSM-III anxiety disorders. Standardization data were obtained for this instrument and their clinical and research implications are discussed.

A large number of fear survey schedules have been developed for use in behavioral research and therapy (see e.g. Geer, 1965; Wolpe and Lang, 1964; Scherer and Nakamura, 1968; Braun and Reynolds, 1969; Goldberg, Yinon and Cohen, 1975; Granell de Aldaz, 1982) with the aim of assessing a patient's degree of fear to various phobic stimuli or to evaluate clinical outcomes of treatment for anxiety disorders. Although there is some limited support for the predictive validity of such self-report instruments with respect to phobic avoidance behavior (Lanyon and Manosevitz, 1966; Edelman, 1970; Lick, Sushinsky and Malow, 1977), recent reviews of the use of fear inventories emphasize the rudimentary state of the research on these measures (Tasto, 1977; Hersen, 1973; Wade, 1978).

For example, published normative data for a number of fear survey schedules is often based upon non-patient samples such as college students (see e.g. Geer, 1965; Wilson, 1967; Scherer and Nakamura, 1968; Bernstein and Allen, 1969; Rubin *et al.*, 1969; Braun and Reynolds, 1969; Landy and Gaupp, 1971; Granell de Aldaz, 1982). The generalizability of such data to the psychiatric patients for whom these instruments were intended is open to question, and the use of such analogue samples has been extensively criticized in the behavioral literature (Bernstein and Paul, 1971; Rosen, 1975).

With the adoption of the psychiatric nomenclature found in the third edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III), a further problem has arisen concerning normative data on fear survey schedules; namely that the normative parameters have changed (American Psychiatric Association, 1980). Some anxiety disorders found in DSM-II have been abolished (anxiety state), while new nosological categories have been invented (e.g. panic disorder, post-traumatic stress disorder) or more clearly delineated (e.g. agoraphobia with and without panic attacks).

One of the more widely employed fear survey schedules is the version developed by Wolpe and Lang (1969) consisting of 108 common fears which the patient is asked to rate in terms of their fear-evoking potential on a scale ranging from 0 (no fear) to 4 (very much fear). Published normative (Wolpe and Lang, 1969) and standardization (Fischer and Turner, 1978) data for the FSS have been based, like most of its predecessors, upon samples of college students. The present investigation was undertaken to provide standardization data for the Wolpe and Lang (1969) Fear Survey Schedule, based upon a sample of psychiatric patients who met the DSM-III criteria for one of the anxiety disorders.

METHOD

Subjects

The subjects were 37 males and 104 females who were seen for diagnostic evaluation and treatment at the Anxiety

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Disorders Program of the University of Michigan Hospitals. Each patient was evaluated using the DSM-III guidelines and fulfilled the criteria for a primary Axis I diagnosis of one of the anxiety disorders. The sample consisted of 64 simple phobics (13 male), 34 patients with agoraphobia with panic attacks (5 male), 20 social phobics (10 male), 11 obsessive-compulsives (2 male) and 12 panic disorder patients (7 male). The men had a mean age of 36 years (S.D. = 13.3) and the women had a mean age of 36 years (S.D. = 11.3).

Procedure

The raw data for each subject's responses on the Fear Survey Schedule were transformed into standard (z) scores, with a constant of 3 added to each value to eliminate negative numbers, following the procedure of Fischer and Turner (1978). The data for each item on the Fear Survey Schedule are presented in Table 1, separated by sex.

Using this transformation, a response exactly equal to the mean response for that item in the patient population has a transformed standard score (TSS) of 3.00. A response

Table 1. Standardization data for the Fear Survey Schedule

FSS item	Females					Males				
	0	1	2	3	4	0	1	2	3	4
1. Noise of vacuum cleaners	2.7	4.8	6.9	8.9	11.0	2.6	4.9	7.2	9.4	11.7
2. Open wounds	2.0	2.9	3.8	4.7	5.7	2.0	2.8	3.7	4.5	5.3
3. Being alone	2.1	2.8	3.6	4.3	5.0	2.4	3.5	4.7	5.9	7.1
4. Loud voices	2.1	3.0	4.0	4.9	5.9	2.2	3.7	5.3	6.8	8.4
5. Dead people	1.9	2.6	3.4	4.1	4.9	1.7	2.7	3.7	4.7	5.7
6. Speaking in public	1.5	2.2	2.8	3.5	4.2	1.4	2.1	2.8	3.5	4.3
7. Crossing streets	2.5	3.6	4.7	5.7	6.8	2.6	5.2	7.9	10.6	13.3
8. People who seem insane	1.7	2.5	3.2	3.9	4.7	1.9	2.7	3.4	4.2	4.9
9. Being in a strange place	1.9	2.7	3.4	4.2	4.9	2.1	3.1	4.2	5.2	6.2
10. Falling	2.9	2.9	3.8	4.6	5.5	2.2	2.8	3.5	4.2	4.8
11. Automobiles	2.4	3.2	4.0	4.8	5.6	2.6	3.9	4.1	6.4	7.7
12. Being teased	2.2	3.1	4.1	5.1	6.0	2.2	3.0	3.9	4.8	5.7
13. Dentists	2.0	2.7	3.4	4.2	4.9	2.1	3.0	3.9	4.7	5.6
14. Thunder	2.3	3.1	4.0	4.9	5.8	2.5	4.6	6.7	8.8	10.9
15. Sirens	2.3	3.4	4.5	5.7	6.8	2.5	3.9	5.2	6.6	8.0
16. Failure	1.5	2.2	3.0	3.7	4.4	1.3	2.1	2.9	3.7	4.5
17. Entering a room*	2.1	2.8	3.6	4.3	5.1	1.9	2.8	3.7	4.6	5.5
18. High places on land	2.1	2.7	3.4	4.0	4.7	2.1	2.8	3.5	4.3	5.0
19. High buildings*	1.7	2.3	3.0	3.6	4.2	1.8	2.4	3.1	3.8	4.4
20. Worms	2.4	3.4	4.3	5.3	6.2	2.6	3.9	5.2	6.6	7.9
21. Imaginary creatures	2.6	4.3	6.1	7.9	9.6	2.6	4.4	6.2	8.0	9.9
22. Receiving injections	2.1	3.1	4.0	4.9	5.8	2.2	3.5	4.7	6.0	7.2
23. Strangers	2.1	3.0	4.0	4.9	5.8	2.2	3.5	4.7	5.9	7.1
24. Bats	1.9	2.6	3.3	4.1	4.8	2.2	3.2	4.2	5.2	6.2
25. Journeys by train	2.4	3.1	3.9	4.6	5.4	2.6	3.9	5.1	6.3	7.6
26. Feeling angry	2.1	2.8	3.6	4.4	5.1	2.1	3.0	3.9	4.8	5.6
27. People in authority	2.1	3.1	4.1	5.2	6.2	1.8	2.7	3.7	4.7	5.6
28. Flying insects	2.2	3.0	3.9	4.7	5.5	2.5	4.1	5.8	7.4	9.0
29. Seeing others injected*	2.3	3.2	4.2	5.1	6.1	2.3	3.7	5.0	6.4	7.8
30. Sudden noises	1.8	2.7	3.5	4.4	5.3	2.1	3.1	4.1	5.1	6.1
31. Journeys by car	2.2	2.9	3.6	4.3	5.0	2.4	3.5	4.5	5.6	6.6
32. Dull weather	2.4	3.4	4.4	5.4	6.4	2.6	3.6	4.6	5.6	6.6
33. Crowds	2.1	2.7	3.4	4.1	4.7	2.2	3.0	3.8	4.6	5.4
34. Cats	2.6	3.8	5.0	6.2	7.4	2.8	7.1	11.5	15.9	20.2
35. Bullying*	1.8	2.5	3.3	4.1	4.8	1.6	2.5	3.4	4.4	5.3
36. Tough-looking people	1.8	2.7	3.5	4.4	5.2	1.8	2.9	4.1	5.3	6.5
37. Birds	2.6	3.8	4.9	6.1	7.2	2.7	6.3	9.9	13.5	17.2
38. Sight of deep water	2.3	3.1	4.0	4.8	5.7	2.4	3.4	4.4	5.4	6.4
39. Being watched working	2.1	2.8	3.6	4.3	5.1	2.0	2.8	3.7	4.5	5.3
40. Dead animals	2.1	3.0	3.8	4.7	5.6	2.0	3.6	5.2	6.7	8.3
41. Weapons	1.9	2.6	3.4	4.2	5.0	2.2	3.1	4.0	4.9	5.8
42. Dirt	2.6	3.8	5.0	6.1	7.3	2.5	5.0	7.6	10.1	12.6
43. Journeys by bus	2.9	3.9	3.6	4.3	4.9	2.6	3.7	4.8	5.9	7.0
44. Crawling insects	2.0	2.8	3.6	4.5	5.3	2.4	3.7	5.1	6.5	7.8
45. Seeing a fight	1.7	2.5	3.2	4.0	4.8	1.6	2.7	3.8	4.9	5.9
46. Ugly people	2.5	3.8	5.1	6.4	7.8	2.4	3.6	4.8	6.0	7.2
47. Fire	2.0	2.7	3.5	4.2	5.0	2.2	3.1	4.0	4.9	5.8
48. Sick people	2.1	2.9	3.7	4.6	5.4	2.0	3.0	4.0	5.0	6.0
49. Being criticized	1.8	2.5	3.2	4.0	4.7	1.4	2.3	3.1	4.0	4.9

(continued)

Table 1—continued

FSS item	Females					Males				
	0	1	2	3	4	0	1	2	3	4
50. Strange shapes	2.7	4.6	6.5	8.3	10.2	2.5	4.9	7.3	9.7	12.1
51. Being touched by others	2.5	3.7	4.9	6.2	7.4	2.2	3.5	4.7	6.0	7.3
52. Being in an elevator	2.2	2.9	3.6	4.2	4.9	2.1	3.0	3.8	4.6	5.4
53. Witnessing surgery*	1.9	2.6	3.2	3.9	4.6	1.9	2.6	3.3	4.0	4.7
54. Angry people	1.8	2.5	3.3	4.0	4.7	1.6	2.6	3.5	4.4	5.4
55. Mice or rats	1.7	2.5	3.2	3.9	4.6	2.3	3.2	4.1	5.0	5.9
56. Human blood	2.1	3.0	3.9	4.8	5.6	2.2	2.9	3.7	4.5	5.3
57. Animal blood	2.2	3.2	4.1	5.1	6.0	2.3	3.1	4.0	4.9	5.8
58. Parting from friends	2.0	2.7	3.5	4.3	5.0	2.0	3.0	4.0	5.0	6.0
59. Enclosed places	2.1	2.8	3.5	4.2	4.9	2.3	3.2	4.1	4.9	5.8
60. Surgical operation*	1.3	2.1	2.8	3.6	4.3	1.7	2.3	2.9	3.7	4.4
61. Feeling rejected*	1.4	2.2	2.9	3.6	4.4	1.1	2.0	2.9	3.8	4.7
62. Journeys by airplane	1.8	2.5	3.1	3.7	4.3	2.1	2.8	3.4	4.0	4.6
63. Medical odors	2.3	3.3	4.3	5.2	6.2	2.3	3.3	4.2	5.2	6.2
64. Feeling disapproved of	1.7	2.4	3.2	3.9	4.6	1.4	2.2	3.0	3.8	4.6
65. Harmless snakes	2.1	2.9	3.6	4.3	5.0	2.2	3.1	4.0	4.9	5.8
66. Cemeteries	2.2	3.1	4.0	4.8	5.7	2.3	3.5	4.8	6.0	7.3
67. Being ignored	2.0	2.8	3.5	4.3	5.1	2.0	2.8	3.7	4.5	5.3
68. Darkness	2.1	3.0	3.9	4.8	5.7	2.4	3.5	4.6	5.7	6.8
69. Premature heart beats*	2.1	2.9	3.7	4.5	5.2	2.3	3.2	4.1	5.0	5.9
70. Nude men	2.4	3.6	4.8	6.0	7.2	2.6	4.8	6.9	9.1	11.3
71. Nude women	2.5	3.9	5.3	6.8	8.2	2.8	7.1	11.5	15.9	20.2
72. Lightning	2.1	2.8	3.6	4.4	5.2	2.4	3.9	5.2	6.5	7.9
73. Doctors	2.2	3.0	3.8	4.5	5.3	2.4	3.2	4.1	4.9	5.8
74. Crippled people*	2.3	3.3	4.2	5.2	6.2	2.1	3.1	4.1	5.1	6.1
75. Making mistakes	1.8	2.5	3.3	4.1	4.8	1.4	2.3	3.2	4.2	5.1
76. Looking foolish	1.6	2.3	3.1	3.8	4.5	1.2	2.1	3.0	3.8	4.3
77. Losing control*	1.6	2.2	2.9	3.5	4.1	1.3	2.1	2.8	3.6	4.3
78. Fainting	2.2	2.9	3.5	4.2	4.9	2.3	3.0	3.7	4.4	5.2
79. Becoming nauseous	2.2	3.0	3.7	4.5	5.2	2.3	3.0	3.8	4.6	5.4
80. Harmless spiders	2.2	3.0	3.8	4.7	5.5	2.3	3.8	5.4	6.9	8.5
81. Decisions*	2.0	2.8	3.5	4.3	5.1	2.0	2.9	3.7	4.5	5.3
82. Sight of knives*	2.5	3.7	5.0	6.2	7.4	2.3	3.0	3.8	4.6	5.4
83. Being mentally ill*	1.9	2.5	3.2	3.8	4.4	1.8	2.5	3.1	3.8	4.4
84. Taking written tests	2.1	2.9	3.7	4.5	5.3	2.1	2.9	3.6	4.3	5.0
85. Member of opposite sex	2.4	3.5	4.6	5.6	6.7	2.3	3.3	4.3	5.3	6.3
86. Large open spaces	2.4	3.1	3.8	4.5	5.3	2.7	3.7	4.7	5.7	6.8
87. Dogs	2.5	3.3	4.2	5.0	5.8	2.5	4.1	5.8	7.4	9.0
88. Germs	2.4	3.2	4.0	4.7	5.5	2.3	3.5	4.7	5.8	7.0
89. Being seen unclothed	2.0	2.9	3.7	4.6	5.4	2.0	3.1	4.1	5.2	6.2
90. Taking medicine	2.3	3.1	3.9	4.7	5.5	2.4	3.2	4.0	4.8	5.6
91. Becoming sexually aroused	2.6	3.8	5.1	6.3	7.5	2.5	5.0	7.6	10.1	12.6
92. Being punished by God	2.3	3.0	3.7	4.5	5.2	2.2	3.0	3.9	4.7	5.5
93. Possible homosexuality*	2.6	4.0	5.3	6.6	8.0	2.3	3.0	3.8	4.6	5.4
94. Being dressed unsuitably*	2.0	2.9	3.8	4.6	5.5	2.1	3.0	3.9	4.8	5.7
95. Ministers or priests	2.5	4.9	7.2	9.6	11.9	2.6	5.2	7.9	10.6	13.3
96. Hurting others' feelings*	1.6	2.4	3.1	3.8	4.6	1.4	2.3	3.1	3.9	4.7
97. Kissing	2.6	4.7	6.8	8.9	11.0	2.4	4.0	5.6	7.2	8.8
98. Undertakers	2.4	3.3	4.2	5.1	6.0	2.4	3.6	4.8	6.0	7.2
99. Police	2.4	3.5	4.6	5.8	6.9	2.3	3.9	5.4	7.0	8.5
100. Fish	2.7	4.8	6.9	8.9	11.0	2.6	4.8	6.9	9.1	11.3
101. Masturbation	2.6	3.7	4.8	5.9	7.0	2.4	3.8	5.2	6.5	7.9
102. Leaving home	2.1	2.8	3.4	4.1	4.7	2.4	3.5	4.6	5.7	6.8
103. Physical examinations	2.1	2.9	3.7	4.4	5.2	2.3	3.2	4.1	4.9	5.8
104. Marriage	2.3	3.2	4.1	5.0	5.9	2.3	3.3	4.3	5.3	6.3
105. Insecticides	2.4	3.5	4.5	5.5	6.6	2.4	3.5	4.5	5.6	6.7
106. Vomiting	2.3	3.0	3.7	4.4	5.1	2.3	3.1	3.8	4.6	5.3
107. Responsibility*	2.0	2.8	3.6	4.4	5.2	1.9	2.8	3.6	4.4	5.2
108. Hospitals	2.1	2.8	3.4	4.1	4.8	2.2	2.9	3.6	4.3	5.0

*Wording of item has been abridged.

with a TSS > 3.00 would be above the mean, while a TSS < 3.00 would indicate a response below the mean for that patient group (male or female). The data were not separately analyzed by diagnosis due to the limited number of patients in some of the diagnostic categories. The mean total Fear Survey Schedule score based upon untransformed data was 94.5 (S.D. = 50.2) for males and 113.6 (S.D. = 64.5) for females. The scores ranged from 18 to 225 for men and from 8 to 294 for women.

DISCUSSION

It is important to note, as did Fischer and Turner (1978), the distinction between using the FSS ipsatively and normatively. Clinically the FSS is most useful as an ipsative instrument to assess the degree of clustering of phobic stimuli for an individual patient and as an outcome measure to evaluate the effectiveness of treatment. Normatively these data, which are presented on an interval scale as opposed to the original ordinal scale of measurement, can be employed in future research with the FSS using non-clinical or analogue phobic subjects to determine the extent to which such a sample resembles psychiatric patients. The present data also permit a clinician to compare the responses of an individual patient to a standardized group of patients with a DSM-III anxiety disorder.

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