

## THE PSYCHOLOGICAL PROFILES OF MALE AND FEMALE PATIENTS WITH CORONARY HEART DISEASE

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**A**S part of a wider clinical and epidemiological study of patients with coronary heart disease (CHD), we are using a variety of techniques to investigate the personality characteristics of our patients. Since CHD has a high male prevalence similar investigation have been carried out previously in male subjects. CHD in females has in general received little research attention and a search of the literature has failed to find a reference to the assessment of personality factors in females. We have already published the results of an analysis of the Cattell 16 Personality Factor Questionnaire administered to 63 male patients (1). This present communication records the results of the Cattell questionnaire derived from 100 male and 80 female subjects, the former including the 63 patients previously studied by us. All had typical cardiac pain and characteristic ECG changes of CHD, as defined by us in a previous publication (2).

### *Results*

Table I shows the results of the Cattell questionnaire in the 100 male and 80 female patients. The following characteristics were found: Both male and female patients show significant negative scores for C, F and H, and significant positive scores for L, O, Q<sub>2</sub> and Q<sub>1</sub>. In addition the males alone show significant negative scores for N, Q<sub>1</sub> and E, and significant positive scores for A and B. The two sexes show opposite scores for factor I, males showing a significantly positive score and females a significantly negative score.

The clustering of O+, Q<sub>2</sub>+, C—, F—, L+, H— and Q<sub>2</sub>+ in both sexes would indicate the presence of a neurotic anxiety reaction. In addition both males and females show an introverted pattern, this being more pronounced in the male group.

Our patient groups score differently on factors I, E, A and Q<sub>1</sub>, and in each case the male group scores in the direction which would be expected of a female group. That is to say, although it would be expected in comparing a female group with a male group that the females should score high on factors I and A, and low on factors E and Q<sub>1</sub>, the opposite occurs in our patient groups, with the males scoring I+, A+, E— and Q<sub>1</sub>—. The I scores show a complete reversal of the expected scoring with the females scoring I— (i.e.,

more self-reliant and masculine) and the males scoring I+ (i.e., more dependant and sensitive).

The overall picture shows that our male group is less masculine, less realistic and aggressive than expected, whereas our female patients, on the otherhand, with an I— score, are tough, realistic and self-reliant. These findings would agree with those of Wandwell, Bahnson and Caron (3) who found that male coronary patients showed “less masculinity” and also with those of Gertler, Garn and White (4) who claimed that the “aggressive” pattern was not an outstanding feature of the psychological history of a coronary patient.

Our findings do not therefore support the views of Friedman and Rosenman who find a high frequency of the aggressive type “A” personality among coronary patients. However, as pointed out by these workers (5), the recent illness and hospitalisation of our patients may seriously distort and tend to eliminate such characteristics in our patients. Our findings cannot therefore be taken to deny the views of Friedman and Rosenman but a further assessment of our patients, after they have been fully rehabilitated, may clarify this point.

The only Cattell norms available for an Irish population are those obtained recently from a representative sample of Irish male university students (6). The profile of the Irish college group tends to the high anxiety type picture, but there is an absence among them of the O+, L+ and Q.+ pattern and there is therefore not the same clear-cut anxiety trend as in both out-patient groups.

The increased trend towards anxiety and neuroticism in male and female patients may be partly or entirely the effect of the illness and hospitalisation. These circumstances may also account for the characteristic feminine traits shown by the male patients, but the finding of male personality traits among the female patients is more difficult to evaluate.

#### *Summary*

100 male and 80 female patients with coronary heart disease were examined by means of the Cattell 16 PF questionnaire. Both sexes showed neurotic anxiety traits with a tendency to introversion, when compared with the American norm. These characteristics may have been partly or entirely the result of the illness and hospitalisation. When compared to Irish student norms, the anxiety/neurotic/introversion pattern remained but was less strikingly different because of the Irish student's similar tendency.

Comparison of male and female profiles showed a paradoxical tendency for the males to show certain unexpected female characteristics, with male characteristics among the female patients.

#### *References*

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TABLE I  
 Results of Cattell 16 PF Administered to 100 male and 80 female patients with coronary heart disease, compared with American population norms.

FACTORS	O.	Q <sub>1</sub>	C.	Q <sub>2</sub>	L.	M.	F.	H.	I.	E.	G.	N.	A.	B.	Q <sub>3</sub>	Q <sub>4</sub>
100 MALES	+	+	-	+	+	+	-	-	+	-	+	-	+	+	-	+
p-value.	<0.001	<0.001	<0.001	NS	<0.01	NS	<0.001	<0.001	<0.05	<0.001	NS	<0.01	<0.01	<0.01	<0.001	<0.001
80 FEMALES	+	+	-	-	+	+	-	-	-	+	-	-	+	-	-	+
p-value.	<0.001	<0.05	<0.001	NS	<0.05	NS	<0.01	<0.01	<0.001	NS	NS	NS	NS	NS	NS	<0.001

+ = high score.  
 - = low score.