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Familial clinical patterns

I. Reported symptoms and signs in the dentist and his wife

EARLIER REPORTS have shown interesting relationships in psychological complaints,¹ blood glucose,² serum cholesterol,³ and the frequency of clinical findings in married couples.⁴ It is anticipated that this approach may shed additional light on the environmental influences in the genesis of disease. This report is designed to reanalyze the clinical findings⁴ in married couples in a larger sample. Specifically, an attempt will be made to answer the following questions: [1] What is the relationship between reported symptoms and signs in married couples? [2] How does the husband-wife correlation compare with the frequency of complaints in the husband versus those in an age-paired unrelated female group? [3] What conclusions may be drawn from these two sets of relationships?

Method of investigation A total of 345 persons participated in the study. These individuals are participants in a multiphasic screening program conducted in Los Angeles under the auspices of the Southern California Academy of Nutritional Research, in Columbus under the aegis of the Ohio Academy of Clinical Nutrition, and in Florida under the sponsorship of the Southern Academy of Clinical Nutrition. Specifically, there were 115 dental practitioners, 115 wives, and 115 women (wives of other dentists) who were age-paired with the wives. The age patterns are summarized in Table 1.

Each subject completed the Cornell Medical Index Health Questionnaire (CMI).⁵ This is a self-administered form consisting of 195 questions. For purposes of this analysis, the total number of affirmative responses was recorded for each subject. Table 2 summarizes the CMI responses. It may be noted that the women (both the wives and the unrelated women) reported more affirmative answers than were reported by the men.

Results Question 1. In order to resolve the first question, correlation coefficients were performed for the husband versus the wife (Table 3). It will be observed that there is a statistically significant correlation coefficient ($r = + 0.354$, $p < 0.01$). Hence, in answer to the first question, the frequency of symptoms and signs (total CMI affirmative responses) is similar in the married couples.

Question 2. Women who were age-paired against the wives were used in the study. The correlation coefficient between the husband and the unrelated woman is not statistically significant ($r = - 0.035$, $p > 0.05$). Hence, in answer to the second question, there is no significant relationship between symptom-sign frequencies (total CMI yes responses) in men and women unrelated by marriage.

TABLE I
Age distribution of dental practitioners, wives, and unrelated women

Age groups	Men	Wives	Unrelated women
20-29	1 (0.9%)	10 (8.7%)	10 (8.7%)
30-39	49 (42.6%)	52 (45.2%)	52 (45.2%)
40-49	49 (42.6%)	46 (40.0%)	46 (40.0%)
50-59	15 (13.0%)	5 (4.3%)	5 (4.3%)
60-69	1 (0.9%)	2 (1.7%)	2 (1.7%)
Total	115	115	115
Mean age	41.1	38.6	38.6
Standard Deviation	6.8	7.3	7.3
Minimum age	28	26	26
Maximum age	60	60	60

Discussion Within the limits of this experiment, the frequency of symptoms and signs in married couples exhibits a statistically significant correlation. However, this does not exist when the husband is compared with an unrelated, age-paired woman.

The question arises as to whether men and women with common health backgrounds select each other as husband and wife. To resolve this question, the groups were subdivided equally into two age categories. Thus, one group of men ranged from under 30 through 40 years of age and the other group from 41 years upward.

Question 3. An analysis of the symptoms and signs (total CMI yes responses) in the husband and the wife reveals that in the younger group there is a statistically significant correlation ($r = + 0.264$, $p < 0.05$). However, in the older group, the correlation coefficient ($r = + 0.412$) is much higher. Thus, during the early years of marriage, there is a relationship between reported symptoms and signs in the husband and the wife. This may indicate a low degree of interselectivity by men and women with a similar health status. However, as the marriage matures, which can be interpreted to mean more years of living together, the

CMI responses	Men	Wives	Unrelated women
0-4	17 (14.8%)	4 (3.5%)	3 (2.6%)
5-9	33 (28.7%)	18 (15.7%)	17 (14.8%)
10-14	21 (18.3%)	28 (25.2%)	27 (23.5%)
15-19	20 (17.4%)	25 (21.7%)	27 (23.5%)
20-24	7 (6.1%)	8 (7.0%)	9 (7.8%)
25-29	8 (7.0%)	10 (8.7%)	8 (7.0%)
30+	9 (7.8%)	21 (18.3%)	24 (20.9%)
Total	115	115	115
Means	13.6	18.9	19.7
Standard deviation	10.5	11.2	11.7
Minimum	1	1	1
Maximum	53	53	65
Range	52	52	64

TABLE 2
Distribution of responses to Cornell Medical Index Health Questionnaire (CMI)

	Number of pairs	r	p
Husband vs. wife	115	+0.354	< 0.01*
Husband vs. unrelated woman	115	-0.035	> 0.05
Wife vs. unrelated woman	115	+0.136	> 0.05
Husband vs. wife (Husband's age < 41)	61	+0.264	< 0.05*
(Husband's age > 41)	54	+0.412	< 0.05*
Husband vs. unrelated woman (Husband's age < 41)	61	-0.004	> 0.05
(Husband's age > 41)	54	-0.150	> 0.05
Wife vs. unrelated woman (Age < 39)	58	+0.378	< 0.01*
(Age > 39)	57	-0.099	> 0.05

*Statistically significant correlation coefficient

TABLE 3
Correlation coefficients of CMI responses

symptom-sign frequencies become more alike. To further corroborate these findings, the age factor is not significant between the husband and the unrelated woman in either group (Table 3). Parenthetical mention should be made that the frequency of findings is similar in the younger (< 39 years) female groups ($r = +0.378$, $p < 0.01$). However, this relationship is lost with advancing age (39 + years), as shown by an $r = -0.099$ and $p > 0.05$.

The evidence suggests that, as couples live together longer, their

complaint frequencies become more alike. This would indicate that environmental factors may be playing a role. Environmental factors are effective in many forms, such as psychic stress and dietary and social habits (tobacco, alcohol). It is noteworthy that the findings described here for the frequency of complaints are very similar to those reported earlier, with psychic complaints,¹ blood glucose,² serum cholesterol,³ and the frequency of clinical complaints in a smaller group.⁴

Summary One hundred fifteen dental practitioners, 115 wives, and 115 women (wives of other dentists) who were age-paired with the wives were studied in terms of the frequency of reported symptoms and signs. The evidence suggests that there is a statistically significant correlation coefficient only in the married couples. Within the limits of this study, the evidence indicates that this relationship becomes more similar only with the increasing number of years together.

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Clinical brief

Rectal examination in myocardial infarction

Patients with acute myocardial infarction can safely be given a brief, gentle, digital rectal examination on their initial physical examination, provided they are not in cardiogenic shock and do not have any life-threatening arrhythmia. There is apparently no basis for the widespread belief that rectal examination is dangerous since it does not produce angina pectoris or any other adverse clinical or electrocardiographic effects, maintain Dr. David L. Earnest and Dr. Gerald F. Fletcher of Emory University and Grady Memorial Hospital, Atlanta.

The benefits of rectal examination, on the other hand, are considerable, they point out in the *New England Journal of Medicine* (281:238, 1969). It may reveal the unsuspected presence of fecal occult blood, prostatic en-

largement, or voluminous hard stool impaction, and thus it is a useful adjunct in the planning of anticoagulation and bladder and bowel care for this patient group.

A brief, gentle, digital rectal examination was performed on 86 patients with acute myocardial infarction within twenty-four hours after admission to the hospital. The patients were continuously monitored by electrocardiogram.

None of the patients had an abnormal electrocardiogram or adverse clinical effect; 62 of the 86 patients had stool present in their rectums, and in most cases the character and amount suggested potential impaction. Symptomatic prostatism or marked gland enlargement was found to be present in 20 of the 56 male patients.