Behavioral Correlates of Coronary Risk

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In their study of healthy Italian blue-collar workers, Sanavio et al. [1] find that the content-based Jenkins Activity Survey type A score failed to differentiate subjects who were defined as type AI, A2, and non-A by the structured interview (SI). The possible advantage of the SI in assessing both content and behavior is supported by a report that type A style but not content correlated to lower coronary risk in normal coronary-prone upper middle class Cleveland men [2]. It is also supported by SI studies demonstrating favorable survival among older type A subjects who scored the lowest in anger-hostility and depression [3], and fewer speech hesitation pauses 1 s or more in type A than in type B subjects rated by Rosenman [2]. These findings’ prompt identifying cues for prevention or treatment programs [1] by monitoring the frequency and duration of pauses in dialog, 4.79 ± 2.48/min, 1.50 ± 0.33 s (mean ± standard deviation), which correlate with a 6-fold increase in the prevalence and incidence of coronary heart disease, p < 0.05, and mood, respectively. This method is supported by the reduction of blood pressure associated with longer, less recurrent pauses [4] manifested by pauses averaging 1.18 s at > 2/min and 1.93 s at 1/min, yielding a ratio 1.18/1.93 = 0.611 approximating the golden section 0.618 (range 0.534-0.833), and the fact that even brief (1-5 s) spontaneous pauses in ongoing patterned behaviors are accompanied by an immediate decrease in 5-hydroxytryptamine neuronal activity to, or below, baseline levels. It is also supported by participatory matching of pauses in dialog at moderate arousal on the order of 1.40 s at 2 pauses/ min, a joint, mutually responsive rhythm [5], the effects of therapy (remission from depressive state) manifested by a decrease of about 25% in the average number of pauses in female patients from 7.89 to 5.88 pauses per 100 syllables, p < 0.05, about 32% in male patients from 7.58 to 5.12 pauses per 100 syllables, p < 0.05, about 59% decrease in mean pause duration from 1.94 to 1.14 s in female patients and 56% decrease from 1.80 to 1.01 s in male patients, p < 0.004 and p < 0.04, respectively [6], and the chronic influence of depression on coronary heart disease manifested by the highly significant correlation (0.67) between obvious depression scores in 1964 and 1974 Glostrup examinations [7], and (0.60, p < 0.01) between pause rates in 1965 and 1975 Cleveland examinations [2].

References