Biofeedback Assisted Relaxation Training for Essential Hypertension: Who is Most Likely to Benefit?

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摘要

Abstract

The main purpose of this study was to develop a way to predict which persons with essential hypertension would benefit most from biofeedback-assisted relaxation (BFAR) training. Second, the authors evaluated the effect of BFAR on blood pressure (BP) reduction, which was measured in the clinic and outside the clinic using an ambulatory BP monitor. Fifty-four adults with stage 1 or 2 hypertension (78% taking BP medications) received 8 weeks of relaxation training coupled with thermal, electromyographic, and respiratory sinus arrhythmia biofeedback. Blood pressure was measured in the clinic and over 24 hours using an ambulatory BP monitor pretraining and posttraining. Systolic BP dropped from 135.0 +/- 9.8 mmHg pretraining to 132.2 +/- 10.5 mmHg posttraining ($F = 6.139$, $P = .017$). Diastolic BP dropped from 80.4 +/- 8.1 mmHg pretraining to 78.5 +/- 10.0 mmHg posttraining ($F = 4.441$, $P = .041$). Data from 37 participants with baseline BP of 130/85 mmHg or greater were used to develop a prediction model. Regression showed that those who were able to lower their SBP 5 mm Hg or more were (1) not taking antihypertensive medication, (2) had lowest starting finger temperature, (3) had the smallest standard deviation in daytime mean arterial pressure, and (4) the lowest score on the Multidimensional Health Locus of Control-internal scale. Since these types of persons are most likely to benefit from BFAR, they should be offered BFAR prior to starting hypertensive medications