The Accuracy of Blood Pressure to Determine Lying due to Stress Levels

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The purpose of this experiment was to test the accuracy of blood pressure, heart rate, blood oxygen levels, and eye dilations in order to determine a more accurate way to determine if somebody is lying. It was hypothesized when a subject was asked a series of yes-or-no questions and asked to lie, the subject's blood pressure would rise and be more accurate than blood oxygen level, pulse rate, and eye dilations. This was tested by asking high school students to answer several questions. The testing began by taking the student's initial vital signs and a picture as a control for each person. After every question, the participant's vital signs were collected again, and each subject was video taped to monitor eye dilations. The resulting data only showed a correlation between the change in diastolic pressure and the change in pulse rate from the control to after being asked the last question. This experiment showed a standard hospital blood pressure cuff, monitor, and scanner could be used in police interrogations instead of a polygraph machine. These simple common devices could decrease the outside stress factors and prove to be more accurate than a polygraph test.

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