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## **CARDIAC AND PERCEPTUAL RESPONSES TO PERFORMING TANDEM CARDIOPULMONARY RESUSCITATION (POSTER)**

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**Introduction:** Information regarding the physiological and perceptual response of the human body in the act of performing tandem cardiopulmonary resuscitation (CPR) relative to solo CPR is lacking. **Purpose:** The purpose of this investigation is to compare rescuer heart rate (HR), rating of perceived exertion (RPE), and CPR quality during Tandem-CPR and Solo-CPR. **Methods:** Thirteen healthy young adults (aged  $26.5 \pm 4.3$  yrs) were recruited from MSUB campus community. Participants completed two 6-minute bouts of CPR during a single session. Tandem and solo techniques were counterbalanced, with a 15-minute rest period separating the bouts. Values for HR and RPE were recorded using a Polar V800 HR monitor and Adult OMNI-RPE scale, respectively. A Laerdal Resuscitation Anne CPR manikin was used to record compression score (0-100%), which is a value that incorporates compression rate and depth to illustrate CPR quality. Mean HR, peak RPE and CPR compression scores were examined with dependent t-tests between CPR techniques. Statistical significance was accepted at  $p < 0.05$ . **Results:** Sample mean HR per bout was significantly lower in Tandem-CPR than in Solo-CPR ( $111.2 \pm 16.8$  vs.  $126.1 \pm 19.3$ ,  $p < 0.0001$ ). Peak RPE was significantly lower during Tandem-CPR compared to Solo-CPR ( $3.2 \pm 2.0$  vs.  $5.0 \pm 2.5$ ,  $p < 0.05$ ). Compression scores were significantly higher for Tandem-CPR when compared to Solo-CPR ( $96 \pm 3\%$  vs.  $94 \pm 5\%$ ,  $p < 0.05$ ). **Discussion:** Current findings call for a professional recommendation that tandem CPR be used when available, based on perception, performance, and physiological differences. This confirms professional guidelines. This study does not account for the anecdotally reported stress incited in CPR context; further research should examine this aspect.