

**THE RELATIONSHIP OF RESUSCITATIVE FLUIDS  
ON INTRACRANIAL PRESSURE IN INDIVIDUALS WITH  
NON-PENETRATING, ISOLATED HEAD INJURY**

**AN ABSTRACT OF  
A THESIS  
PRESENTED TO THE GRADUATE FACULTY  
OF WESTERN CONNECTICUT STATE UNIVERSITY**

**by  
Barbara Banda**

**IN PARTIAL FULFILLMENT  
OF THE REQUIREMENTS FOR THE DEGREE  
MASTER OF SCIENCE OF NURSING**

### Abstract

Trauma is the leading cause of death in persons 1-44 years old in this country. Head injury contributes to more than half of trauma deaths. Current treatment protocols include high volume fluid resuscitation during the initial stages of treatment. Current literature suggests that this practice may be detrimental in general trauma. This ex post facto study investigated the relationship of intravenous fluids and intracranial pressure (ICP) in individuals with closed, isolated head injury within the initial 24-hour period of ICP monitoring. A chart review was done. The sample included 16 subjects, aged 16 to 30 years, all with documented head injury. Subjects were admitted to either level I or level II trauma centers in Connecticut. Data included the amount of fluids infused during the 24-hour period after the initial ICP reading, the initial ICP reading, and the ICP reading at the end of this 24-hour period. A Pearson's  $r$  was used to demonstrate the relationship between the fluids infused in the 24-hour period following the initial ICP reading and the change between the two ICP readings. There was a correlation of 0.29. While positive, this is not strong. This study does not support that administration of intravenous fluids in head injury is harmful, supporting the current practice of high volume fluid administration during the initial treatment stages of traumatic head injury.